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ABSTRACT

The effectiveness of a teaching method known as "pyramid training" is appraised. This training method was implemented in an inservice program called the Classroom Management Training Program (CMTP). The pyramid technique progressed in the following manner: A three day training session in classroom management skills was taught by a a consultant to six elementary school teachers. After a month, during which the CMTP skills could be practiced, the teachers received an additional three days training emphasizing how to teach other teachers the CMTP skills. These teachers then became coaches with the responsibility of teaching groups of other teacher CMTP skills. This study explores the pyramid model of training within the context of its validity as a teaching tool that may be used in teacher centers. (JD)

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The University of San Francisco

PYRAMID TRAINING OF TEACHERS IN CLASSROOM MANAGEMENT TECHNIQUES

A Dissertation

Presented to

the Faculty of the School of Education

Organization and Leadership Program

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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December 1980

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This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education.

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Dean of School of Education

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CHAPTER I

THE PROBLEM

Introduction

Background

Today, more than ever, we understand much about how students learn. Research has taught us about what kinds of student behaviors are associated most frequently with learning achievement. We have also been able to discover what types of teacher behaviors are likely to promote those student behaviors which are so often associated with learning. During the last few years, staff development research has indicated that it is possible to provide inservice training for teachers which increases their skills, thus promoting the student behaviors which enhance learning. This process is illustrated below.

Fig. 1. The influence of teacher training on student learning.

Knowing this, and realizing the need to assist ever-more-stable teaching staffs to meet new demands, implementing effective staff development is still difficult. The recent period of steady inflation and declining public support for schools has severely limited funding for staff development efforts. What has emerged, therefore, is a well-defined need for staff development coupled with largely inadequate resources to provide it.

A demonstration project first funded by the U. S. Department of Education in 1978 to help address this dilemma is the federal Teacher Center Program. Authorized under the Educational Amendments of 1976, this program provides competitive grant awards to local teacher centers which provide the forms of staff development which they have determined are dictated by the local teachers' expressed needs.

One of the teacher centers funded in 1979 is the Staff Development Consortium--Santa Clara County (California) Educators. This center is staffed by three professionals and serves, potentially, a client system of 15,000 teachers in the county. Its major goal for its first year of operation was to offer teachers instruction in improving classroom management (including discipline, classroom organization, and maximizing time spent on academic tasks). Given its budget limitations and a ratio of one staff member to 5,000 potential clients, the

Teacher Center staff began to seek low-cost and high-impact solutions to the problem of delivering staff development in classroom management.

Foundations

Among the classroom management inservice programs explored for use by the Teacher Center was one called the Classroom Management Training Program (CMTP). This program has been developed (over a period of ten years) to train teachers in systematic, specific, research-based techniques for classroom management. The program emphasizes: (a) the development of classroom management methods (which enhance teachers' instructional skills, students' motivation to work and classroom order and discipline), (b) the development of methods to teach teachers new skills to a high level of proficiency in a brief period of time, and (c) the development of methods to disseminate the training to other teachers.

Appendix A is an overview of the Classroom Management Training Program. The three day training session in classroom management skills was taught by the consultant, Dr. Jones. Six elementary school teachers attended.

After approximately one month, during which the CMTP skills could be practiced, the same six teachers returned for an additional three days. This time, the training emphasized how to teach other teachers the CMTP

skills. The first day was spent in reviewing the skill concepts and in learning effective training techniques. The second and third days were devoted to actual training. Each team of two (tier-1) teachers trained six additional (tier-2) teachers from their respective schools. The consultant observed and critiqued the coaches' work, modeling improved techniques where appropriate.

In this three day process, then, the original six teachers became "coaches," or trainers of other teachers. According to the CMTP system, these coaches (tier-1 teachers) were at this point qualified to coach other groups of six teachers without further supervision from Dr. Jones. (All CMTP trained teachers from a school, however, were encouraged to meet in weekly "maintenance meetings" to discuss common needs and problems in implementing the program).

The method of disseminating CMTP described above is known as "pyramid" training. By using the pyramid training method, the initial services of the consultant are maximized while a local cadre of coaches is formed who can continue to disseminate the training.

In viewing the Teacher Center's management plan, it was clear that the staffing level of the Center was inadequate to meet the demand for services to clients. The pyramid training method was seen to hold the promise of being not only cost-efficient and time-efficient, but of

creating new local resources--the coaches--who would (in effect) become adjunct Teacher Center staff. This arrangement could free Teacher Center staff to develop/provide other training programs, while the coaches continued to disseminate CMTP. This promise, although tempting, was seen as having been insufficiently tested. From this concern the present study began.

Purpose

Need

The present study explores the effectiveness of the pyramid model of training as a consideration for future Teacher Center planning. If the pyramid model can be used to effectively train large numbers of teachers to a high level of skill in classroom management, it is likely that the method can be applied to other content areas. The study is intended to examine the pyramid training model itself. The subject of classroom management is only incidental here.

Problem

The central problem of the study is to determine the effectiveness of the pyramid model in the inservice training of teachers.

The study examines through classroom observations changes which occur in the level of student disruptiveness

in the classrooms of teachers trained in CMTP. A comparison is made between any changes in the level of student disruptiveness in the classrooms of those teachers trained by the consultant (tier-1) and the classrooms of those teachers trained by other teachers (tier-2).

The questions to be answered by the study are: (1) How effective was CMTP in reducing the level of student disruptiveness in the classrooms of tier-1 teachers? (2) How effective was CMTP in reducing the level of student disruptiveness in the classrooms of tier-2 teachers? (3) How does the effectiveness of CMTP in reducing student disruptiveness compare between the classrooms of the tier-1 teachers and the classrooms of the tier-2 teachers?

Definition of Terms

For the purposes of the study the definitions of terms include:

Level of student disruptiveness - This is defined as the number of times "out of seat," "talking to neighbors," and "off-task" are recorded in a classroom observation, divided by the number of students observed and divided again by the number of minutes in the observation period. The definitions of these three behaviors appear in Appendix B.

Tier-1 teachers - This term will be used in reference to the six teachers who were directly trained by the

consultant and later became "coaches," or trainers of others.

Tier-2 teachers - This term will refer to the group of teachers who were not trained by the consultant, but received their training from the tier-1 teachers.

Limitations

Delimitations of Scope and Content

The subjects of the study are twelve teachers from three different elementary schools. The specific training program the study examines is a classroom management program. The external validity of the data is limited in that they may be generalizable only to subjects, settings, and training content similar to those studied here.

Limitations of Design and Procedures

The study is designed to investigate in a systematic way the effectiveness of the pyramid method of inservice training for teachers. It is not designed as a scientific experiment, and accordingly, no attempt has been made to eliminate extraneous variables which may have affected the participating teachers or their students. Every attempt has been made to conduct the study with care and precision. Its conclusions, however, are based on reasonable assumptions about the data the observers

recorded. Any such conclusions cannot be considered scientific fact. Rather, they are to be considered as logical and probable explanations for changes in student behaviors from the pre-training phase to the post-training phase.

Importance

Implications

If the pyramid model of training can be effectively applied to inservice teacher training in classroom management, it can presumably be applied to inservice teacher training in other contents. This being the case, a number of implications could be drawn. It would be consistent, for instance, for staff development budgets to allocate less money for outside consultants and more for provision of release time for coaches. The coaches having become adjunct staff, the program could be operated with only a skeletal crew of regular staff.

The possibility of changing the staffing pattern from one where Teacher Center staff are the sole providers of training to one in which the coaches act as adjunct staff is depicted in Figure 2.

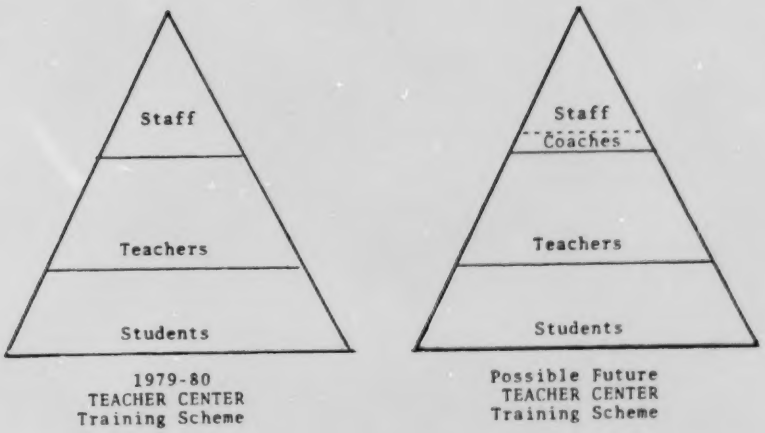

Fig. 2. Illustrated change in staffing pattern.

Significance

The study is intended primarily to provide information for the management plan for the Teacher Center (Staff Development Consortium--Santa Clara County Educators). Specifically, the information sought regards the effectiveness of the pyramid model of training for future teacher inservice which will be offered.

Other federal teacher centers, regional resource centers and school district staff development programs facing similarly low levels of funding and staffing will likely benefit from the study as well.

CHAPTER II

REVIEW OF RELATED LITERATURE

Organization of Chapter

As the present study has the purpose of investigating the effectiveness of the pyramid method of inservice training, the literature will be reviewed using a pyramidal organization. First, the broad base of what student behaviors are most frequently associated with learning is addressed briefly. Next, some research is reviewed with respect to what teacher behaviors are most frequently associated with the kinds of student behaviors associated with learning.

Thirdly, the chapter reviews some research on conducting effective inservice training for teachers. Fourthly, the review turns to research on conducting effective training for trainers of teachers. Lastly, some literature on administrative support for inservice training is addressed. A diagram of the chapter's organization follows in Figure 3.

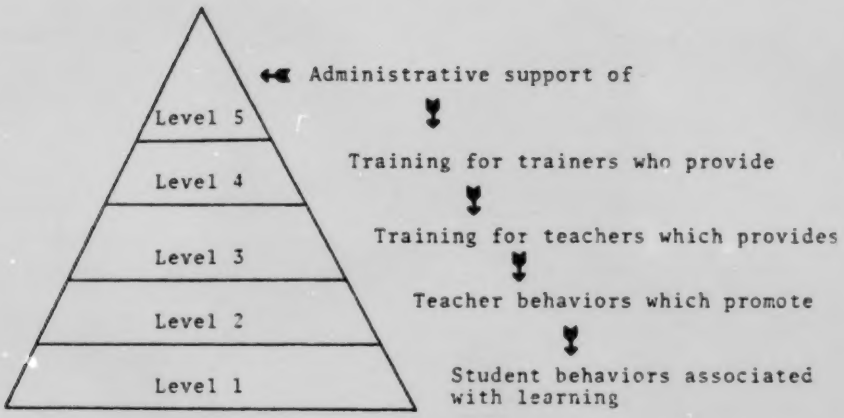

Figure 3. Hierarchical organization of topics reviewed in Chapter II.

Student Behaviors Which Promote Learning

The beginning Teacher Evaluation Study (BTES)[1] commissioned by the California Commission on Teacher Preparation and licensing helped educators to understand more clearly what kinds of student behaviors are most frequently associated with learning. Comprised of three phases and a number of sub-studies, the BTES encompassed five years of work studying two hundred teachers in thirteen school districts throughout California. Although the study focused on only grades two and five, its findings

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[1]Carolyn Denham and Ann Lieberman, Time to Learn (Washington, D. C.: National Institute of Education, 1980).

regarding student and teacher behavior related to learning appear to be applicable at other levels.

Among all the variables studied with regard to student behavior, the variable most commonly and most strongly associated with learning became known as academic learning time (ALT). This was defined as the amount of classroom time the student is actively engaged in a learning task and experiencing a high level of success. Knowing this, the research addressed the question of what teacher behaviors were most commonly associated with large proportions of ALT in classrooms.

Teacher Behaviors Frequently Associated with the Student Behaviors which Promote Learning

Five teacher behaviors were identified by the BTES which increase students' ALT and, thus, make learning more likely. These were (1) diagnosis, (2) prescription, (3) presentation, (4) monitoring and (5) feedback.

In addition, a classroom environment where academic learning seems truly valued and student achievement is encouraged was found to produce more ALT. Classrooms in which cooperation between teacher and student and among students themselves was evident showed high levels of ALT and of learning.

Two teaching behavior variables were found to correlate negatively with student learning. One was when

the teacher spent prolonged time periods with individual students who did not understand something. Usually this behavior happened during seatwork. A student became confused and asked for an explanation. The frequency of this "explanation-need" behavior in some classrooms was interpreted by BTES researchers to mean that the objective being taught might be at the wrong level of difficulty or that the directions were unclear.

A second variable which was found to be negatively associated with learning was frequent reprimands for inappropriate student behavior. Students most frequently reprimanded also tended to be those who showed less growth on achievement tests.

The BTES is not the only major study of teaching and learning, but it is remarkable in its methodology (combining both classroom observation and criterion-referenced achievement tests) and its scope. The findings of Phase IIIb of the study lead a clear path toward the discovery of the specific behaviors teachers can exhibit which will likely promote student learning.

Knowing what types of behaviors would be appropriate to promote with teachers is one step in the teacher staff development process. The next step, however, is knowing how best to accomplish the actual inservice training.

Conducting Effective Inservice Training for Teachers

Nicholson et al conducted a thorough review of the literature on teacher inservice in 1976, reporting on over 2,000 books, periodicals and unpublished papers written after 1957. The report comments that, although the literature on inservice education is voluminous, very little of it reports on hard research, and very little of what could be considered to be hard research is useable, a situation Nicholson finds lamentable.[1]

In his literature review, Nicholson refers to a work by Lawrence which has come to be called the Florida Summary,[2] as "the only review of research found which may properly deserve the name..."[3] Viewing ninety-seven inservice programs (which had included some form of evaluation), he analyzed them according to fourteen variables. Among his findings were that school-based staff development is more frequently successful than that held at and sponsored by colleges and universities, that programs

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[1]Alexander Nicholson et al, The Literature on In-Service Education: An Analytic Review. ISTE Report III (Washington, D. C.: National Center for Education Statistics, 1976), p. 16.

[2]Gordon Lawrence et al, "Patterns of Effective Inservice Education" (Gainsville, Florida: Florida Department of Education, 1974). Unpublished Paper.

[3]Nicholson, The Literature on Inservice Education, p. 18.

providing individualized activities for teachers were more frequently successful than those with activities common to all, and that programs which focused on adding a new skill were more frequently successful than those which attempted to change teachers' attitudes.

The results of two years of reviewing more than two hundred studies regarding methods of training were reported on by Joyce and Showers, who delineate four levels of training impact and five training components necessary to reach impact-level number four (application).[1] The schematic that follows in Figure 4 depicts their conclusions.

Possible Levels of Impact
(Training Outcomes)

1. Awareness	realizing an area exists and being able to focus on it
2. Concept understanding	internalizing the concept
3. Skill attainment	possession of the skill to act on the new knowledge
4. Application/ problem solving	using the skill, adapting and refining it

Components of Training

1. Presentation of theory	description of skill
2. Modeling	demonstration of skill
3. Practice	simulation of use of skill
4. Feedback	structured or open-ended information provided about practice performance
5. Coaching	assistance in transferring the skill to classroom use

Fig. 4. Synopsis of Joyce and Showers review.

[1]Bruce Joyce and Beverly Showers. "Improving Inservice Training: The Messages of Research," Educational Leadership 37 (February 1980): 379-385.

The major conclusion of the review was that in order for the skills learned in a teacher inservice program to be applied in classrooms (impact level four), most teachers need training which includes all five training components.

Conducting Effective Training of Trainers

The Training Teacher Training Project

One of a number of experimental projects designed to train teacher-trainers was the collaborative program between the Lynwood (California) Unified School District and the University of Southern California. Reports about the project indicate that university personnel trained school-based intermediary teams of reading teachers.[1] The aim was to build the internal capacity of the district to plan and deliver its own inservice program. The program consisted of a planning phase, training of the cadre of trainers, training of the teachers, and enlisting the support of school administration. Program findings indicated that (1) the design of the program was strongly accepted by district personnel, (2) level of program participation by teachers was high, (3) growth was found in both the trainers and the teachers they trained, and (4) the

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[1]Elsa M. Brizzi, Trainer-of-Trainers: A Collaborative Approach to Inservice Staff Development (Los Angeles: University of Southern California, 1978).

trainers themselves had particular skill improvement.

Training for Trainers in the Classroom Management Training Program

A report on research using the pyramid method to train teachers in CMTP was written by Dr. Fredric Jones in 1977.[1] Seven teachers from two elementary schools in the inner city of Rochester, New York were solicited by their principals to participate in exchange for inservice credit. These teachers formed tier-1.

Baseline data were taken in classroom observations regarding two student behaviors: out-of-seat and talking-to-neighbors. After their training in CMTP, follow-up data were taken using the same procedures as before. A pre-post comparison was drawn for the tier-1 teachers' classrooms.

The tier-1 teachers next received a brief course in how to "coach." They then trained several teachers from their respective schools (tier-2). Pretest-posttest comparisons were figured on changes in levels of out-of-seat and talking behaviors in the classrooms of the tier-2 teachers.

Both the tier-1 and tier-2 teachers experienced

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[1]Fredric H. Jones, William Fremouw and Stephen Carples, "Pyramid Training of Elementary School Teachers to Use a Classroom Management 'Skill Package,'" Journal of Applied Behavior Analysis 10 (Summer 1977): 239-253.

significant reductions in the levels of the two disruptive behaviors scored. Jones concluded that the pyramid method could be a powerful model for delivering cost-effective inservice while also building a school district's "in-house" expertise.

Administrative Support of Inservice Training Programs for Teachers

Inservice teacher training cannot be viewed in isolation. It is part of the total operation of the school or district. Harris, Bessent and McIntyre describe the school operation as having two major functions: a maintenance function and a change function.[1] Within the change function the authors maintain that school change can be either unplanned or planned. One method of bringing about planned school change, they say, is through inservice training for teachers.

The Rand "Change Agent Study" published in 1975 reinforces this concept of inservice.[2] Seeking to discover how change occurs in schools, the investigators found that neither the amount of money invested nor the level of

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[1]Ben M. Harris, E. W. Bessent and Kenneth McIntyre, Inservice Education: A Guide to Better Practice (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1969).

[2]Paul Berman and Milbrey Wallin McLaughlin, Federal Program Supporting Educational Change, Volume IV: The Findings in Review (Santa Monica, California: U. S. Office of Education, 1975).

sophistication of the technology employed were significantly correlated with successful planned school change. What did surface as highly correlated with successful planned school change was the presence of well-planned, in-depth inservice teacher training. Another variable found to be frequently associated with successful planned school change was administrator support.

Wood and Thompson suggest that a possible reason why inservice teacher training is frought with problems is the view many administrators hold of teachers: that teachers dislike inservice, are disinterested in professional growth, need to be directed and wish to avoid responsibility for their own inservice education.[1] This attitude as described by Wood and Thompson is in agreement with the final report of the Rand "Change Agent Study" which finds that planned school change most often succeeds in schools where the administrator and teachers adopt a "problem solving" approach to inservice, as opposed to a "deficit model."

The literature reviewed establishes a framework for identifying effective inservice teacher training. Having a clear idea of the kinds of student behavior which enhance achievement (such as Academic Learning Time, for

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[1]Fred H. Wood and Stephen R. Thompson, "Guidelines for Better Staff Development," Educational Leadership 37 (February 1980): 374-377.

example), staff development personnel can select training contents which assist teachers in promoting those behaviors. Using the model proposed by Joyce and Showers, the training can be planned to incorporate all five components to make classroom application likely. Training for trainers can be likewise established to provide all five components, which makes successful training more likely. A program design which reflects the above characteristics and supported by school and district administrations, has, according to the literature reviewed, a high probability of success.

CHAPTER III

METHODOLOGY

Introduction

Problem

The study seeks to determine the effectiveness of the pyramid method of inservice teacher training by comparing any change in the level of student disruptiveness in the classrooms of tier-1 teachers with the classrooms of tier-2 teachers.

Overview of Procedures

The study is a comparison of the changes in the level of student disruptiveness in the classrooms of twelve elementary school teachers who participated in the Classroom Management Training Program. Six of the teachers (tier-1) were trained by the consultant and another six teachers (tier-2) were trained by the tier-1 teachers.

In order to make the comparison, a series of pre- and post-training classroom observations were scheduled. Thus, the changes in individual classrooms' level of student disruptiveness from the period before the teacher was trained in CMTP to after the training were computed.

Subjects and Setting

Schools

Subjects of the study included teachers and students of twelve regular elementary school classrooms located in three schools in Santa Clara County, California. These schools have been designated arbitrarily, for the purposes of the study, as School A, B, and C. School A is located in a middle-class suburban area, School B in a lower-middle class section of a mid-size city and School C is located in an upper-middle class suburb. All three schools include kindergarten through sixth grade classrooms.

Teachers

Before any training was offered, an overview presentation was scheduled. The consultant, Dr. Jones, presented a three-hour overview of CMTP which included a description of the content of the training and the processes to be employed. Educators from throughout the county were invited to attend. Announcements about the overview appeared in the county Superintendent of Schools' weekly memo to all school sites (1,000 copies distributed) as well as in the Teacher Center News (10,000 copies distributed). The overview presentation was held twice in one day (once in the morning, repeated in the afternoon) to encourage broad participation.

At the end of the meeting, participants were informed that school staff members making a commitment to utilize CMTP and to train others could apply to send a team of two teachers and the principal for six days of training. The Teacher Center offered to assist with the payment of substitute costs where these costs posed a problem to the district. An application form was distributed to each school group present. A sample application form appears in Appendix C.

Participants representing eleven elementary schools attended the overview presentation. The Teacher Center received applications from seven elementary school teams, Of those seven applications, only three were from school teams in districts affiliated with the Staff Development Consortium--Santa Clara County Educators. Membership in the Consortium became the deciding factor in the selection of one team over another for participation in CMTP, since all applications appeared comparable with the others.

The pyramid training participants consisted not only of the two teachers from each of the three elementary schools (tier-1), but also six additional teachers from each of the three schools (tier-2). The two tier-1 teachers from each school acted as a team to coach the group of six (tier-2) teachers from their respective schools.

Two teachers from each group of six (tier-2) were randomly selected for the study. Data were taken from

all tier-1 teachers. For purposes of notation, teachers are referred to first by schools (A, B, C), then by their tier (1, 2) and then by a sub-numeral to arbitrarily distinguish teachers within the same school and tier. The two teachers from School A in tier-1, then, are designated $A1_1$ and $A1_2$. Figure 5 represents a schematic for this pyramid training design.

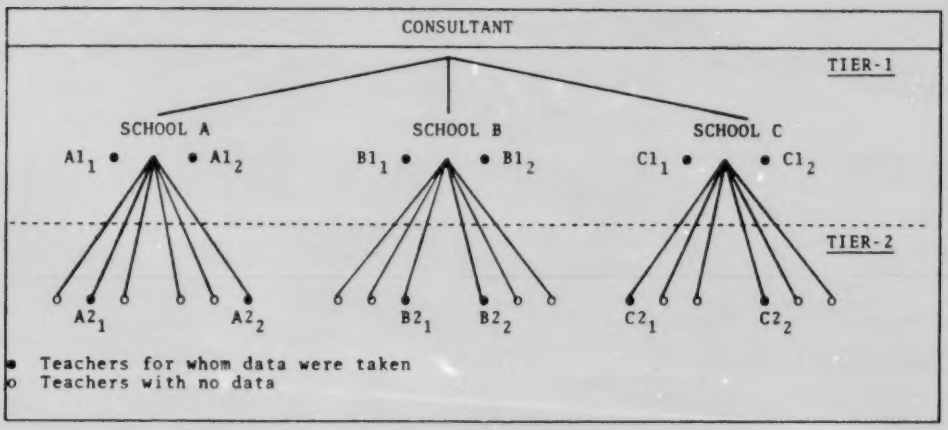

Fig. 5. The pyramid training design.

Timeline

Trained observers recorded baseline data for tier-1 three weeks before the tier-1 training. Follow-up data were taken by the observers for tier-1 three weeks following the tier-1 training. The same procedure was employed for tier-2.

Instrumentation

Observation Record

Among the major objectives of the Classroom Management Training Program is that the teacher will learn skills which reduce the level of disruptive student behavior in the classroom. According to CMTP's originator, Dr. Fredric Jones, the most frequent student behaviors which cause loss of academic learning time are students talking to their neighbors, leaving their seats without permission, and generally being off-the-task (day-dreaming, playing around, etc.).

A data system designed by Dr. Jones was used to obtain relatively simple measures of these three types of counter-productive student behavior during nine to seventeen minute observation periods. A sample scoring sheet appears in Appendix B.

Scoring Procedures

The observation period was divided as follows: one minute to observe out-of-seat behavior, three minutes to observe talking-to-one's-neighbors and three minutes to observe off-task behavior. This procedure was repeated until the seventeen minutes were over or the observation was terminated for another reason. The observer used a scoring sheet and a digital stopwatch.

About 20 percent of the observations were scored by an additional (independent) observer so that inter-rater reliability figures could be established. In the observation of "out-of-seat," the median level of agreement between the two observers was 100 percent. In the observation of "talking-to-neighbors," the median level of agreement was 88 percent. In the observation of "off-task," the median level of agreement was 85 percent. Seventeen minute observation periods were considered maximal, with the minimal acceptable observation period being nine minutes.

Survey Questionnaire

A brief check-list type of demographic questionnaire was administered to all twelve teachers studied (tier-1 and tier-2). The questionnaire asked about age, sex, educational level of the teacher, race/ethnicity, grade taught, number of years of teaching experience, and number of years in present school. A copy of the questionnaire appears in Appendix D.

Evaluation Form

A detailed follow-up evaluation form designed by Dr. Fredric Jones, the consultant, was sent to each of the twelve teachers studied (tier-1 and tier-2). The form asked for scaled responses to questions about the teachers' perceptions of changes in their students' behavior

and changes in their own behavior since they completed the CMTP course. It also asked questions which would assist in the formative evaluation of CMTP. These required a narrative response. A copy of the form appears in Appendix E.

Data Collection

Observers

Three substitute teachers were hired as classroom observers for the study. All were female and experienced in substitute teaching for at least two years. They were given no information concerning the nature or purpose of the research.

Observers were given two full days of training. The first half of the first day was devoted to defining and identifying the three behaviors: "talking-to-neighbors," "out-of-seat, " and "off-task." The remainder of day one was used to instruct observers in the logistics of observation, using a digital stopwatch and completing the scoring sheet. The morning of day two was spent in a real classroom (of a teacher not participating in CMTP) practicing collecting observation data. The afternoon of day two was spent comparing and analyzing the morning's findings.

Classroom Observation Procedures

Teachers who had been nominated by their principals to participate in CMTP were given the opportunity to apply for the training. On the application form was a question asking if the teacher had any objection to having his or her students observed several times before and after the training. No one answered that he or she objected.

The six elementary school teachers selected to participate (tier-1) were sent a letter explaining that the classroom observations would be arranged, that student (and not teacher) behavior was to be observed, and that the study was part of the Teacher Center's own evaluation system. They were given no details about what was being observed, but were told that the results of the study would be shared with them. Teachers were instructed to ignore the data takers and to conduct their classrooms as usual.

The observations had been scheduled for times when students would be working independently, not when the teacher was working with the class. Usually, the observation occurred during seatwork time. If the teacher began instructing the whole class, the observation was terminated. If a fire-drill or any other major disruption occurred, the observation was terminated.

A minimum of five baseline and five follow-up classroom observations for each teacher in tier-1 and tier-2 were conducted. The observations were conducted on various days of the week and at varying times of the day. Specific observation appointments were made between the observer and the teacher involved. These appointments were arranged by asking the principal to set a meeting approximately fifteen minutes before the opening of the school on a mutually agreed-upon observation day. The meeting included the principal, the observers and the teachers to be observed. The observers asked each teacher what times that day would be most convenient and would be times when the teacher would not be instructin the whole class, but would be working with a small group or with individuals. This procedure for setting appointments worked well at schools A and C. It did not prove satisfactory at School B where the principal was often either absent or forgetful about setting the meeting.

Data Analysis

Description of Demographic Data

Demographic data describing participants are presented in the form of a table in the following chapter. The table presents frequency and percentage representation for each response category on each of seven variables.

Description of Observation Data

Average levels of student disruptiveness per pupil per minute in each participating teacher's classroom were computed for the periods befcre and after he or she was trained in CMTP. On observations scored by two observers, the level of student disruptiveness was computed by averaging the two scores. A hypothetical example of a computation of the level of student disruptiveness appears below:

Hypothetical Classroom Observation of Seventeen Minutes

Number of out-of-seat recorded	2
Number of talking-to-neighbors	3
Number of off-task recorded	18
Total disruptions recorded	23
23 ÷ 26 (students in room)	.88
88 ÷ 17 (minutes in observation period)	.052

Level of Student Disruptiveness = .052

The data from the observations are primarily reported in the form of tables displaying descriptive statistics summarizing the average levels of student disruptiveness.

Description of Evaluative Data

The responses to the questions in Section 1A (Student Discipline) on the Follow-up Evaluation Form from each participating teacher are also summarized and grouped by tier and by total group in a table in the following chapter.

CHAPTER IV

FINDINGS

Introduction

The study seeks to determine the effectiveness of the pyramid method of inservice teacher training. The question being asked is whether the tier-2 teachers benefited as greatly as the tier-1 teachers in the Classroom Management Training Program. In order to answer the question, percentage change in disruptive student behavior was computed from pre- to post-training periods for tier-1 teachers' classrooms and compared with percentage change in the classrooms of tier-2 teachers from their pre- to post-training periods.

Subjects

Table 1, pages 33-4 presents the responses by participating teachers to the demographic questionnaire which appears in Appendix C.

Ages within both tiers tended to cluster in the middle ranges, as did educational level, number of years as a teacher, and number of years at present school. Tier-1 teachers were all females, while tier-2 consisted of four female and two male teachers. Within each tier,

TABLE 1

Demographic Data On Participants

VARIABLE	Tier-1		Tier-2		Total	
	f	%	f	%	f	%
Age						
Under 25	0	0	0	0	0	0
25-30	1	16.7	2	33	3	25
31-40	2	33.3	2	33.3	4	33.3
41-50	3	50.0	1	16.7	4	33.3
51-60	0	0	1	16.7	1	8.3
Over 60	0	0	0	0	0	0
Sex						
Male	0	0	2	33.3	2	16.7
Female	6	100	4	66.7	10	83.3
Educational Level						
BA + 15 sem units	0	0	2	33.3	2	33.3
BA + 30 sem units	0	0	0	0	0	0
BA + 30+ sem units	3	50	4	66.7	7	58.3
MA	1	16.7	0	0	1	16.7
MA + 15 sem units	0	0	0	0	0	0
MA + 30 sem units	1	16.7	0	0	1	16.7
MA + 30+ sem units	0	0	0	0	0	0
ED.D. or Ph.D.	0	0	0	0	0	0
Race/Ethnicity						
Caucasian	5	83.3	4	66.7	9	75
Oriental	1	16.7	1	16.7	2	16.7
Hispanic	0	0	1	16.7	1	8.3
Black	0	0	0	0	0	0
Other	0	0	0	0	0	0

TABLE 1 (Continued)

VARIABLE	Tier-1 f	Tier-1 %	Tier-2 f	Tier-2 %	Tier-3 f	Tier-3 %
Grade Taught						
K	1	16.7	0	0	1	8.3
1st	0	0	0	16.7	1	8.3
2nd	1	16.7	0	0	1	8.3
3rd	0	0	1	16.7	1	8.3
4th	1	16.7	1	16.7	2	16.7
5th	2	33.3	2	33.3	4	33.3
6th	1	16.7	1	16.7	2	16.7
Number of Years as a Teacher						
Less than 3	0	0	1	16.7	1	8.3
3-9	2	33.3	2	33.3	4	33.3
10-19	4	66.7	2	33.3	6	50
20-29	0	0	1	16.7	k	8.3
30 or more	0	0	0	0	0	0
Number of Years in Present School						
1	0	0	1	16.7	1	8.3
2	0	9	1	16.7	1	8.3
3	1	16.7	0	0	1	8.3
4-9	2	33.3	3	50	5	41.6
10-15	3	50	0	0	3	25
16-20	0	0	1	16.7	1	8.3
Over 20	0	0	0	0	0	0

most grade levels were represented. The proportions of ethnic minority participants were similar within tiers 1 and 2. Two of the teachers in tier-1 held masters degrees, but no teacher in tier-2 had a masters degree. The two groups of teachers were fairly characteristic of teachers generally and quite similar to each other.

Results of Observations

Table 2 presents a summary of the observation findings for the classroom of each teacher studied for each of the three student behaviors. (See page 36).

The teachers in tier-1 appear to have achieved more reduction in the disruptive behaviors scored than the tier-2 teachers. There are some instances ($B2_1$ and $B2_2$) in which surprising increases in disruptions appear to have occurred.

Table 3 summarizes the observation findings reported in Table 2 across teachers within tiers. (See page 37).

The tier-1 teacher group achieved reduction of all three types of disruptiveness scored. The tier-2 teachers achieved reductions in two of the three behavior categories. In the third behavior, "out-of-seat," the tier-2 group experienced an increase.

Table 4 presents the changes in the average level of student disruptiveness in the classrooms of each teacher studied before and after the CMTP course and any

TABLE 2

Observation Findings by Teacher for Each Type of Student Behavior

TEACHER	Out-of-Seat			Talking-to-Neighbor			Off-task		
	Pre	Post	% Change	Pre	Post	% Change	Pre	Post	% Change
Tier 1									
$A1_1$	.007	.001	-88	.021	.023	- 8	.069	.023	-66
$A1_2$	.006	.001	-91	.006	.006	- 9	.044	.008	-82
$B1_1$	.012	.006	-50	.033	.027	-18	.066	.065	-16
$B1_2$	.023	.009	-63	.086	.026	-70	.241	.077	-68
$C1_1$	.054	.002	-96	.099	.110	+11	.113	.079	-93
$C1_2$	.022	.006	-70	.014	.027	+99	.063	.079	+24
Tier 2									
$A2_1$	.001	.018	+29	.101	.068	-32	.171	.13	-23
$A2_2$	.033	.012	-63	.212	.132	-38	.199	.182	- 9
$B2_1$	.015	.005	-67	.025	.061	+145	.091	.103	+13
$B2_2$	.001	.026	+246	.037	.120	+229	.165	.165	0
$C2_1$	.003	.005	+36	.079	.020	-74	.120	.051	-58
$C2_2$	.005	.047	+ 8	.144	.121	-16	.192	.204	+ 6

TABLE 3

Observation Findings by Tier for Each Type of Student Behavior

BEHAVIOR	Pre	Post	% Change
Out-of-Seat			
Tier 1 (N=6)	.021	.004	-244
Tier 2 (N=6)	.012	.020	+ 64
Talking-to-Neighbor			
Tier 1	.014	.037	-116
Tier 2	.100	.087	-.25
Off-Task			
Tier 1	.270	.055	- 80
Tier 2	.156	.110	- 30

percentage change. The average level of student disruptiveness is computed by adding all recorded incidents of each of the three student behaviors, dividing by the number of observations, dividing again by the average number of minutes in an observation, and dividing again by the average number of students observed. The figure reached, then, is a per student per minute representation.

TABLE 4

Changes in Average Levels of Student Disruptiveness in Classrooms by Teacher

TEACHER	Pre-training Average	Post-training Average	Percentage Change
Tier 1			
$A1_1$	.088	.045	-49
$A1_2$	.054	.014	-74
$B1_1$	.107	.083	-22
$B1_2$	.352	.123	-65
$C1_1$	.348	.210	-40
$C1_2$	.104	.108	+ 4
Tier 2			
$A2_1$	.327	.215	-34
$A2_2$	.498	.342	-31
$B2_1$	.128	.203	+59
$B2_2$	.222	.311	+40
$C2_1$	.230	.073	-68
$C2_2$	.442	.357	-19

As Table 4 indicates, though the tier-1 teachers from School B experienced significant decreases in observed instances of student disruptions from the pre- to post-training periods, the two teacher whom they trained ($B2_1$ and $B2_2$) did not. In fact, teachers $B2_1$ and $B2_2$

experienced a marked increase in the observed instances of student disruptions from the pre- to the post-training period.

Table 5 summarizes the information presented in Table 4 across tiers.

TABLE 5

Changes in Average Levels of Student Disruptiveness Across Tiers

TIER	Pre-training Average	Post-training Average	Percentage Change
Tier 1 (N=6)	.176	.097	-45
Tier 2 (N=6)	.308	.250	-19

The tier-2 teachers, on the average, began their CMTP course having higher levels of student disruptiveness than the tier-1 teachers. The percentage level of decreased disruptiveness observed in the classrooms of tier-1 teachers was more than twice as great as the percentage level of decreased disruptiveness observed in the classrooms of tier-2 teachers.

Results of the Evaluation

Below is presented a portion of the Follow-up Evaluation form completed by participating teachers. The section contains a series of five questions asked with regard to the teachers' perception of any change in students' disciplinary behavior which they saw as having resulted from their CMTP training.

1. To what extent has CMTP produced a change in the following student behaviors?

	Decrease				NC				Increase
A. Student Discipline									
1) Common disruptions (talking, out of seat)	1	2	3	4	5	6	7	8	9
2) Blatant disruptions (laughing, talking across room, class getting rowdy)	1	2	3	4	5	6	7	8	9
3) Number of negative peer interactions such as hassles, criticism, put-downs	1	2	3	4	5	6	7	8	9
4) Talking and dawdling during transitions so that students are slow getting to work following a change of activities	1	2	3	4	5	6	7	8	9
5) Disrupting and making noise when passing through the halls or sitting through programs and assemblies.	1	2	3	4	5	6	7	8	9

What follows is a summary of the average responses to the above questions by participating teachers presented by tier.

TABLE 6

Summary of Follow-up Evaluation Responses by Tier

ITEM	Average Response Tier 1	Average Response Tier 2
1. Common disruptions (talking, out-of-seat)	2.2	2.8
2. Blatant disruptions (laughing, talking across the room, class getting rowdy	1.7	3.0
3. Number of negative peer interactions such as hassles, criticism, put-downs	2.4	4.0
4. Talking and dawdling during transitions so that students are slow getting to work following a change of activities	2.2	4.0
5. Disrupting and making noise when passing through the halls or sitting through programs and assemblies	2.6	3.2
ALL ITEMS	2.2	3.4

On the average, tier-1 teachers (who had experienced greater decreases in levels of observed classroom disruptions than tier-2 teachers), reported they perceived a greater reduction than the tier-2 teachers reported.

Discussion

The apparent lack of success of CMTP with teachers $B2_1$ and $B2_2$ despite its success with their coaches ($B1_1$ and $B1_2$) was unexplained by the data. However, two possible explanations did occur in the training and observation phases.

During the second three-day training period, in which the tier-1 teachers learned to coach, teachers $B1_1$ and $B1_2$ discussed their coaching responsibilities with teachers $A1_1$ and $A1_2$. The School B teachers were heard saying that they joined the training for their own skill-building and not to learn to be coaches. They were understood to say that they would coach the (required) initial six teachers, but had no plans to coach beyond that. In fact, to this writing, they have coached no other teachers in CMTP.

In the observation phase of the study, School B was unique in several respects. Observers noted that the school was strewn with litter and liberally decorated with spray-paint graffiti. The principal, when asked, and later, reminded to set up the pre-observation morning appointments with the teachers never managed to do so. Once she was absent and twice she simply forgot. The lack of follow-through by the principal caused the rescheduling of the tier-2 observations into the first week of June. She had attended very little of the training, although she

had been invited to participate. She also did not choose to attend the (apparently infrequent) "maintenance meetings" at which all CMTP teachers at her school discussed program implementation.

This behavior was marked in its contrast to the behavior of the principals from Schools A and C, both of whom attended the entire training, set up pre-observation conferences as requested, attended maintenance meetings, and supported the coaches' subsequent training of all the teachers at their respective schools.

The conclusion to be inferred from the above information is that the potential success of CMTP's implementation at a given school depends not only upon the skill of the coaches but also upon both the attitude of the coaches and the support of the principal.

School B being a particular exception, the data from Table 5 are presented again below without School B.

TABLE 7

Changes in Levels of Student Disruptiveness Across Schools A & C

TIER	Pre-training Average	Post-training Average	Percentage Change
Tier 1 (N=4)	.149	.094	-36
Tier 2 (N=4)	.374	.247	-34

When the data are viewed without School B, the reduction in level of student disruptiveness across the four remaining tier-1 teachers is approximately the same as the reduction across the four remaining tier-2 teachers.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The study seeks to provide information for the Teacher Center management plan regarding the effectiveness of the pyramid method of inservice training. The method of the study is to compare the resulting change in classroom disruptiveness from pre- to post-training periods of the tier-1 teachers' classrooms with that of the tier-2 teachers' classrooms.

Summary

The data show that, overall, the tier-1 teachers achieved a substantially greater reduction in the levels of classroom disruption after the CMTP than the tier-2 teachers. However, when School B's data are discounted, the result is that tier-1 and tier-2 teachers achieved almost the same levels of reduction of student disruptiveness.

Conclusion

The reduction in classroom disruption levels of tier-1 teachers (who were taught by the consultant) were

clearly more dramatic than the reduction in classroom disruption levels of the tier-2 teachers (who were taught by their peers). However, when (viewing the problems encountered there) School B's data are discounted, the resulting levels of reduction in classroom disruption levels (Schools A and C only) are quite comparable between tier-1 and tier-2. The implication here is that the pyramid method of teacher training can be effective but only under certain circumstances.

Limitations

The generalizability of the study is limited to subjects, settings, and training content similar to those investigated here. The study's method is the systematic comparison of a set of pre-training conditions with a set of post-training conditions. The study seeks to examine with care a small number of cases and to make some practical conclusions based upon the most probable explanations of the phenomena observed.

The internal validity of the study is limited by the use of substitute teachers rather than professional observers, by the fact that observers received only two days of training and by the fact that inter-rater reliability could be feasibly computed in only 20 percent of the observations. Furthermore, with that 20 percent, inter-rater reliability ranged from a high of 100 percent

on scoring out-of-seat behavior, to a low of 85 percent on scoring of off-task behavior, indicating the possible presence of procedural bias in the scoring procedure. Indeed, whether a student is thinking about the assignment or daydreaming at a particular time is a matter of judgment on the part of the observer.

Implications

Effective Teacher Training Methods as a Pre-condition for Successful Pyramid Training

If the purpose of a given inservice training program for teachers is that the teachers will apply the new skill gained in their classrooms, the training design must reflect this. As Joyce and Showers assert, the teachers must be (1) made aware of the skill to be learned, (2) helped to understand the concepts which underlie the skill, (3) develop the actual skill and (4) use the skill to the level of proficiency at which it can be comfortably transferred to the classroom.

Staff development trainers wishing to reach what Joyce and Showers call the fourth level of impact with teachers (application of the skill in the classroom) must incorporate certain components into the training. First the theory must be presented. Next, the skill should be demonstrated in some way. Thirdly, the teacher participants must practice the skill. Fourthly, the teachers should be provided feedback about how they are doing.

Lastly, the teacher should receive coaching for application, including assistance in problem-solving about transferring the skill into use in the classroom.

The Classroom Management Training Program three-day training session (for tier-1 teachers) clearly addressed all five components of training. It was reasonable to expect, therefore, that the fourth level of impact--transfer to the classroom--had been reached. To anticipate the result that classroom management skills learned by the tier-1 teachers were being used, and that there were resultant decreases in student disruption, was reasonably based in research. In fact, that was exactly what the data showed.

Effective Training of Trainers as a Pre-Condition for Successful Pyramid Training

Advance skill in a content area is necessary but not sufficient background for a trainer. The fact that a person is a skillful race car driver, for instance, would not necessarily mean that the person would make a good driver training instructor. Other skills, beyond knowledge of content, are important. It is clear that a teacher well-trained in CMPT and having great success within the classroom, is not (yet) a coach or trainer of others. Defining the process by which this teacher does become a trainer is apparently remarkably simple.

In order to become skilled in using CMTP, the teacher

went through a training process which incorporated the five components described previously. In order to become skilled in training in CMTP, the teacher must go through a training process which includes the exact same five components. This time, however, the components regard how to train others. A schematic of these two parallel processes follows:

Steps	Training the Teacher The consultant:	Training the Trainer The consultant:
1.	Presents theory of CMTP	Presents theory of how to train adults
2.	Demonstrates CMTP skills	Demonstrates training techniques
3.	Provides practice (simulated) using CMTP skills	Provides practice (simulated) in how to train
4.	Gives feedback about performance in CMTP skills	Gives feedback about performance in training skills
5.	Established structure for additional coaching in CMTP skills	Coaches the trainer who is doing actual training

Figure 6. Training steps of the CMTP consultant for training the teacher and training the trainer. The parallel training process implied in the pyramid method can be seen by comparing the two sets of steps.

In order for the pyramid method of training to succeed, staff development personnel must recognize that continued perfecting of a teacher's skills in a content area does not establish that person as an effective coach. There are two quite distinct curricula: acquiring the skills is one and learning to coach is the other. The

Classroom Management Training Program clearly recognized this dual curriculum.

Motivation of the Trainers as a Pre-condition for Successful Pyramid Training

Assuming the successful training of the trainers has occurred, the question arises whether or not the coaches will train anyone. If they do not, a great deal of time and money has been wasted.

The coaches in this study from schools A and C went on to train all the teachers at their respective schools. The coaches from school C went on to train other teachers beyond those at their school. The coaches from school B trained no one other than the initial six teachers whom they were required to train.

The Teacher Center had made an effort to discern which teachers were interested in becoming coaches by asking that question on the application form for participation in CMTP. All six tier-1 teachers had responded that they were interested. However, during the coaching phase of the program, it became apparent that teachers Bl_1 and Bl_2 were solely interested in acquiring the CMTP skills themselves, and not in coaching.

It is possible that this situation could be addressed by providing such motivators as release time, stipends of money, or additional professional recognition. Since the pyramid method of training rests so heavily on whether

or not the coaches actually train anyone, this is a crucial consideration.

Administrative Support as a Pre-condition for Successful Pyramid Training

On the application form for participation in CMTP, the principals were asked whether or not they supported the implementation of the program in their respective schools. They were further asked if they would each be willing to attend the six training days with their teachers.

Even thcugh all of the principals had answered the questions affirmatively, it became apparent that their levels of commitment varied, one from the other. Knowing the importance which the related literature indicates should be placed on the influence of the principal, this issue still remained a problem. During this study, enlisting the full support from the principal at school B never succeeded.

Questions for Further Study

A constructive replication of this study is recommended using the same procedures, but using secondary teachers as subjects. Follow-up research on the twelve teachers in this study is also recommended to ascertain whether levels of disruption are reduced, increased or remain constant over time. A further question for investigation is how many additional teachers the tier-1

teachers coach.

Recommendations for Educational Practice

The following are recommended for the management plan for the Teacher Center.

The two staff development specialists on staff should not become CMTP coaches, but should be facilitators for arranging the use of trained CMTP coaches throughout the county. The Teacher Center should publicize the availability of these coaches and should facilitate the matching of schools wishing to implement CMTP with available trainers. In this way, the coaches become adjunct staff to the Teacher Center and the staff development specialists are free to develop other curricula.

The budget of the Teacher Center can be adjusted to reflect less money allocated for consultants and more for payment of substitute teacher costs for coaches who leave their classrooms to train other teachers.

The Teacher Center should develop a program for training teachers in using effective teaching techniques (such as writing effective lesson plans, doing a task analysis, asking higher order questions) which employs the pyramid method. In this way, the adjunct staff could be expanded to include not only coaches in classroom management, but coaches in use of good teaching strategies.

School districts throughout Santa Clara County wishing to explore the possibility of using the pyramid method of teacher training should look to leadership at the Teacher Center. This leadership should take the form of (1) scheduling of trainers in CMTP, (2) training of trainers in teaching strategies, (3) assistance in establishing a pyramid training schedule, (4) modeling of how pyramid training can be used effectively.

Epilogue

Of the three teams originally trained as coaches, the teachers from school A eventually trained every teacher at their school. The teachers from school B have not trained any other teachers to date. The teachers from school C have trained all the other teachers at their school and some other teachers in their district.

A question which at this time deserves further attention is whether or not the tier-2 teachers can be trained, later, as coaches of others. It seems that sufficient interest exists among some members of this group to warrant additional investigation of the process of converting a "trainee" into a "trainer."

Subsequent to the training of the six elementary school coaches in CMTP, the Teacher Center sponsored the training of six secondary school coaches and six special education coaches, further augmenting the possible

"adjunct staff" of the Center.

In attempting to establish a systematic method for assessing the effectiveness of the pyramid method of teacher inservice training, a number of lessons have been learned. One is that there does exist an approach to evaluating the effectiveness of a teacher inservice program which is more systematic than simply asking participants their opinions of the training and more content valid than seeking to find achievement test scores improving. Staff development personnel should find ways to investigate whether the teacher behaviors (or the student behaviors) which are the objectives of the teacher training are occurring or not after completion of the inservice. In this way, the frequent and deserved criticism of the evaluation of staff development can be intelligently addressed.

Another item of note in the study is that the responses which the teachers made to the follow-up form were very consistent with the findings of the observers. The tier-1 teachers, who experienced greater levels of reduction of student disruption, reported that they observed greater levels of reduction. The tier-2 teachers, who had experienced lesser levels of reduction of student disruption, reported that they observed lesser levels of reduction. It appears that teachers can be accurate evaluators of the success levels they are experiencing with applying

skills learned in a staff development program.

The Teacher Center has completed several months of field-testing its program Learning Mastery Teaching. This program is an adaptation of the work of such major theorists as Madeline Hunter and W. James Popham. It divides the skills of good teaching into nine modules of about one and one-half hours each. The Teacher Center staff is now training trainers in the Learning Mastery Teaching program, utilizing many of the findings of the present study.

Teams of trainers from the same school work together, throughout the training phase and afterwards, in coaching other teachers. The school principal is included in the entire training. Not only the content of effective instructional strategies is covered in the sessions, but also the process of how to coach. Administrative support at the district level is also actively solicited.

The very fact that the Teacher Center is experiencing heavy demand for the Learning Mastery Teaching training points out the need for the use of the pyramid method. The contents of the program are about twenty years old. Whatever dissemination methods have been employed have, at best, met with limited success. Why, twenty years after their development are these techniques and ideas so in demand?

APPENDICES

APPENDIX A

The Classroom Management Training Program

THE CLASSROOM MANAGEMENT TRAINING PROGRAM

OVERVIEW: A COMPREHENSIVE METHODOLOGY FOR TEACHER TRAINING

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INTRODUCTION

The Classroom Management Training Program (CMTP) incorporates the findings of a decade of continuous field research and methodology development aimed at building a systematic and comprehensive framework for teacher training and classroom management. This brief summary will attempt to familiarize you with the many aspects of our work so that you might consider the utility of contracting for CMTP services from the vantage point of an informed consumer. Our efforts have focused in three areas: (a) the development of effective classroom management methods for a range of instructional formats commonly employed at the primary and secondary levels in both regular and special classrooms. These methods dramatically increase teachers' instructional skills, students' motivation to work and classroom order and discipline, (b) the development of methods of training teachers to perform new skills at a high level of proficiency in a relatively brief period of time, and (c) the development of methods of dissemination that train personnel in the field who may already be employed by a given school or school district to train teachers in the effective use of CMTP procedures. While the majority of this work has been or will be reported in the research literature, the following overview contains a summary of the various methods and research findings to serve as an introduction to these advanced instructional and teacher training procedures.

CLASSROOM MANAGEMENT PROCEDURES

During a typical day, a teacher has multiple objectives which require many different sets of skills to achieve. The teacher must impart new information to children, give corrective feedback in a variety of different lesson formats and deal with the problems of motivation and discipline. These various tasks must be carried out simultaneously and must often be carried out differently for various members of the class. The Classroom Management Training Program

has developed specific procedures to maximize the efficiency of the teacher in instructing and giving corrective feedback in multiple settings, in motivating the unmotivated child and in dealing with disciplinary problems. These skills, while diverse and somewhat complicated, form a coherent whole which can be mastered relatively quickly using performance oriented methods of teacher training to be explained below.

Instructional Skills

The Classroom Management Training Program has attempted to do a detailed task analysis of the teaching skills critical to each of the major instructional formats that a teacher might use during a typical school day. The first instructional format which was investigated in detail was seatwork in which the teacher gives corrective feedback to children at their desk for doing work such as arithmetic problems, language lessons or folder work. The second lesson format systematically studied was that of a group discussion in which the objective of the teacher is to "draw children out" so that they express their ideas and feelings at length, take a point of view and build new ideas. The third lesson format was that of small group instruction characterized at the elementary level by a reading or math circle in which the teacher must deal intensively with a subgroup of the class while the remainder work independently.

Classroom Management Training Program data which have been published in the research literature to date indicate significant gains in student productivity in each of these three lesson formats. During seatwork, CMTP instructional skills in conjunction with other management procedures have doubled the productivity of the bottom half of the class in regular suburban and intercity classrooms and have produced far greater increases in special education classrooms. During group discussions, CMTP "Discussion Leader Skills" have allowed teachers to dramatically increase the amount of constructive student participation by up to ten-fold. During small group instruction, CMTP has focused upon increasing the work productivity of the children who are supposed to be working independently outside of the small group. Data indicate a reduction of student disruptions ranging from 75 percent to 95 percent and a doubling of the amount of time on-task of these children. Not surprisingly, however, each of these instructional formats require different teaching skills. Since a detailed description of each set of skills would require a small book, a few examples must suffice here.

Every teacher that we have ever trained has held the individualization of instruction to be a high priority, especially written work or math which is usually done at one's desk. Our classroom data indicate that the average teacher spends approximately four minutes interacting with a child who is "stuck" when giving corrective feedback. This gives the teacher time to check the child's work, to point out any errors, to explain principles that might be involved in correcting the problem, and perhaps to do the problem over with the child. Teachers report that they will typically leave that child and to to the next child when they feel that the student can do the next problem or portion of the assignment correctly. However, at four minutes per student, a teacher could only help seven students in a 30-minute work period, and these students would receive corrective feedback only once. The remainder of the students in the class receive no feedback or instruction because there isn't time. Our precision teaching skills reduce the duration of the interaction between student and teacher to an average of 20 seconds while increasing the rate of those contacts so that a teacher can help any student who is "stuck" approximately every two to three minutes. Within a half-hour instructional period, therefore, a teacher can give corrective feedback up to 10 or 15 times to a student who is stuck and can give intermittent attention and reinforcement to various other students in the class who are on task.

The key to making this process work of course, is in making each of the brief teacher-student interactions highly productive from an instructional point of view. During this interaction, the teacher has two jobs. The first is to reinforce any approximation of task completion on the part of the student. Since it is natural for most of us to begin to give corrective feedback by calling attention to the error, considerable re-learning is required during training to eliminate this punishing aspect of corrective feedback. Giving reinforcement, however, is not a stereotyped giving of praise, even when the work does not warrant it. Rather, positive feedback at the beginning of the teaching interaction incorporates a review of skills already mastered and a reteaching of any concepts needed in order to progress in problem solving. The second job of the teacher is to give the child a "prompt," a message that imparts to the child enough information to enable the child to take the next step in problem-solving. The teacher does not supply answers to the child but, rather, supplies the child with a problem-solving strategy by which the child can check their work and generate the correct answer. Since the teacher will return to the child frequently during the lesson period to supply additional problem-solving strategies as needed, teachers can be very

specific and focused in their instructions. The main difference between a 10-second and a 20-second teacher-student interaction is usually excess verbocity, and skill training emphasizes the necessity of mastering one's own curriculum as a prerequisite of efficient teaching.

The process of reinforcing and prompting a child through the steps of problem solution is known generically as "shaping," and this process is a very general process which can be applied to almost any lesson format. In the course of teacher training, teachers receive practice at shaping students to do arithmetic and language arts seat-work, to express themselves during a group discussion and to become involved in creative writing. Prior experience indicates that once teachers have mastered shaping skills in three to five different lesson formats, they become able to generalize the methodology to novel situations.

Motivation

Prior to this past decade motivation was regarded largely as a quality that children brought with them to school, the lack of which would face the teacher with an extremely frustrating set of barriers to the learning process. Only with the development of the technology of classroom incentive systems has motivation finally become a process under the control of the teacher.

Incentive systems come in many types which may be used to generate good behavior or work productivity, in large groups or for individual children, in most self-contained or departmentalized classrooms. Perhaps the most widely known incentive system is the token economy, a system whereby children are given points or tokens for work completed which can later be exchanged for "backup reinforcers" such as candy or toys. The Classroom Management Training Program has shied away from the use of token economies in all classrooms except those for the multiply-handicapped because they tend to be overly cumbersome, time consuming, expensive, and subject to deterioration over time.

The incentive systems developed by CMTP might be considered "second generation incentive systems" since they are simple, produce the desired improvements in work productivity or good behavior and use learning-related activities as reinforcers rather than candy, toys, or free time. In fact, during training, much time is spent in training teachers to turn what might typically be a relatively dull or repetitive lesson into a preferred activity so that the learning process becomes fun. We have learned, for example, ways of making test review, learning spelling words,

learning basic math facts, or cramming for a mid-term exam the preferred activity which can be used as the reward for completing assignments or behaving appropriately. Having made learning the reward, the teacher is then free to have fun in school much of the day while enhancing rather than sacrificing learning.

The Classroom Management Training Program has made a concerted effort to develop incentive systems which meet specific needs that have become apparent to us during our field research. For example, we have repeatedly observed a high level of disruption and a low level of time on task among those students during a small group instructional format such as a reading circle who are away from the teacher working "independently." Our data indicate that such students are typically "off task" over 70 percent of the time. CMTP has developed and field tested an incentive system for use during small group instruction which is aimed at simultaneously improving the behavior and work productivity of these chidren. The incentive system produces a 75 percent to 95 percent decrease in student disruptions and doubles the amount of time on task of these students not included in the small group. Preferred activities, usually learning related, were used as reinforcers, and students earned an average of 97.3 percent of their preferred activity time indicating a high degree of task orientation by students and very little intrusion upon the teacher attempting to conduct the lesson.

The systematic use of incentive systems throughout the day in conjunction with other management techniques has permitted teachers to eliminate a wide variety of "nagging" management problems. At the elementary level, for example, teachers can gain one instructional period per day by reducing the average duration of a lesson transition from five minutes to one minute. Daily struggles with pencil sharpening, having the proper books and materials to start a lesson, lining up quickly, passing through the halls in an orderly fashion and sitting quietly in assemblies and programs, cleaning up quickly, and completing assignments correctly and on time are but a few of the everyday management dilemmas that are handled at no extra effort in a comprehensive CMTP management program.

At the secondary level equally frustrating management issues are dealt with efficiently such as being in the room and ready to work when the bell rings, showing up with the proper books and pencils, eliminating the need for hall passes, and increasing work productivity while greatly reducing discipline problems. It is not uncommon to have children show up early for class in order to earn extra preferred activities which are learning related. And one of the messages that comes through loud and clear. often

for the first time to some students, is that the only work that is acceptable is work done correctly.

Other aspects of CMTP training focus upon the design of individual incentive systems which typically enable the teacher to develop special programs for children with severe or atypical motivational, learning or behavioral disabilities. When other CMTP group management procedures are being utilized in the classroom, however, individualized programs, even for severely disturbed children, are very rare. And, when they are needed, they can be relatively simple in design and they can be carried out independently by the classroom teacher with very little planning time required on the part of the teacher or other support staff.

Discipline

The Classroom Management Training Program has systematically developed methods of reducing student disruptions in the classroom for over a decade. One of the methods which has been pioneered by CMTP and which is an integral part of all teacher training dealing with classroom discipline is the systematic use of body language and assertiveness to set limits on student disruptions. Student disruptions and rule infractions typically account for students being off-tasks 50 percent of the time in the average classroom. Limit-setting involves the clarification of classroom rules and their systematic enforcement within the context of reinforcement and appropriate behavior.

Not surprisingly, many teachers associate problems of discipline with extreme acts of provocation, violence or vandalism. While such subjects are certainly dealt with in CMTP training, our data indicate that the more sensationalistic instances of student misbehavior are statistically rare events. The more common forms of disruption, in fact, are relatively innocuous when compared to the misbehavior which appear in newspaper headlines. Eighty percent of classroom disruption is simply talking to neighbors, and most of the remainder consists of students being out of their seats when they should be seated. While such disruptions do not pose a fearsome threat to the teacher when considered one at a time, when they occur at a high rate, they greatly impede the educational process. In a typical elementary or secondary classroom we will count one such disruption per child per minute. The reduction of student disruption has been an important part of CMTP research not only because it demoralizes teachers and may lead to confrontations that end in suspension from school, but also because it wastes half of the average school day and precludes learning for many otherwise capable students.

The social skills of limit-setting involve primarily body language, the systematic use of physical proximity, body position, facial expression, and tone of voice to indicate to the child that the teacher "means business." Students are very adept at reading teachers' body language and finding signs of tentativeness and fearfulness, and much of the skill practice could very appropriately be described as assertiveness training. Ironically, the better a teacher gets at setting limits, the more invisible limit-setting becomes. Mechanisms such as yelling, berating, threatening, or taking away privileges represent improper methods and are in almost all cases counterproductive. Properly trained, a teacher's limit-setting would be characterized by early recognition of disruptions, quick initial response, slow and deliberate utilization of physical proximity and eye contact, a calm and low tone of voice, and deftness in dealing with students' wheedling and diversionary tactics. When carried out effectively, limit-setting tends to be self eliminating since the testing of limits diminishes as the boundaries, firmness and consistency of the limits become established.

During teacher training which focuses upon limit-setting, great emphasis is placed upon reinforcing appropriate behavior when it does occur, especially for the most disruptive students. Teachers are trained that they have not completed their interaction with a disruptive student until they have "caught them being good" and have reinforced appropriate behavior. Teachers practice specific reinforcing skills which are designed to produce the desired behavior so that the rewarding of good behavior when it does occur is not left to chance.

While limit-setting has proven to be highly effective, typically eliminating between 80 percent and 95 percent of classroom disruptions, and while it is highly flexible and can be used in many different teaching situations, there are situations in which it is difficult to use. The small group instructional format mentioned above is a chief example since the teacher cannot conveniently leave the small group to utilize physical proximity with the remainder of the students. Open field situations such as gym class, yard duty or passing through the halls also present difficulties. Consequently, CMTP has developed procedures for improving classroom discipline which do not require physical movement and proximity. These techniques in conjunction with assertiveness provide the teacher with a range of management options that dove-tail into a single, unified management program.

Yet, no amount of skill on the part of the teacher can preclude the possibility of repeated provocations or

an extreme outburst by a student on occasion. At such times, the teacher needs to have at their disposal an effective and reliable back-up system which coordinates the efforts of teachers and administrators into a plan of action that will eliminate the provocations. However it is very important at such times to discriminate student upset which may come from frustration with work, stress from some outside source, or a flaunting of the teacher's authority. Alternative means of dealing with each of these situations are practiced during teacher training.

As part of teacher training, teachers and administrators within a building come together to design a back-up system to meet their needs effectively at a minimum of effort and cost. CMTP personnel participate by presenting various management alternatives. This system provides the school with a stepwise set of responses which deal constructively with high-intensity provocations so that the school has a variety of alternatives to suspension or seeing children repeatedly in the office. When such "back-up systems" are in operation, in conjunction with effective classroom management, the administration is freed from dealing with all but the most unusual discipline problems, and teachers receive back-up quickly when they need it.

Overview

The various procedures which deal with instructional methods, the design of incentive systems, and the setting of limits in the classroom converge so that the whole is greater than the sum of the parts. For example, effective instruction reduces discipline problems, and effective discipline frees up time for instruction. Incentive systems both increase work productivity and reduce highly provocative behavior in the disciplinary process. Together, these various highly detailed skills consistently produce classrooms--even classrooms of emotionally and behaviorally disturbed children--in which children spend the vast majority of their time on-task and in which disruptions are the exception rather than the rule. Teachers typically report increased job satisfaction even though their work load is not reduced due to increasing pressure to develop and organize curricula to keep up with the children's progress.

PERFORMANCE-ORIENTED TEACHER TRAINING PROCEDURES

Background

For years, inservice training in education has focused upon either the one-day presentation of new ideas by some outside expert or the accumulation of college credits during summer courses which are rarely designed to meet the management needs of teachers in the field. Such experiences rarely produce a dramatic change in the participants' teaching habits although they may impart useful new information. Even when the modeling of new skills is included in a workshop, our data indicate that teachers' classroom performance shows little change. Teachers typically report that, in spite of their being introduced to new and promising techniques, they do not feel sure enough of themselves to rely heavily on the new procedures in the classroom. Consequently, they rarely perceive such new input as the occasion for reorganizing the teaching routine that they have developed over the years.

The Classroom Management Training Program has systematically studied the amount of change in teacher and student behavior which results from various types of inservice presentations, and an examination of these data have caused CMTP to focus its efforts upon methods of teacher training which utilize performance practice. A training experience which focuses upon performance practice allows the teacher to repeatedly practice new skills until they are mastered and become comfortable. Only as a result of such direct experience is the teacher able to feel confident with new techniques and to know how they might be integrated into a normal teaching day. Performance practice with continuous and immediate corrective feedback produces improvements in teacher behavior which are of a different order of magnitude than that which can be achieved by any other means. In our research, we have produced highly proficient performance of limit-setting skills in teachers who previously had extremely disruptive special classrooms as a result of only two brief training sessions, whereas a previous ten-week didactic workshop produced almost no change. Consequently, much effort has been spent in perfecting performance-oriented teacher training methods to enable teachers to quickly master complex new skills.

Methods

The primary method of teacher skill training developed by CMTP focuses upon performance practice in which teachers are systematically coached through the acquisition of new skills during a mock classroom situation. In

performance practice, the person playing the role of "teacher" actually attempts to conduct a lesson while various other participants play the roles of good or disruptive students or enact various kinds of learning problems. In this way, teachers practice the execution of the instructional skills, the limit-setting skills, and the explanation and implementation of various incentive systems.

Corrective feedback during this training is given by a coach, myself or one of my associates, and this feedback follows a specific format. The coach allows the student-teacher interaction to progress to the point where the teacher is in need of corrective feedback. At that point, the coach stops the interaction and underscores everything that the "teacher" has done right up to that point. Then the coach asks the teacher to critique him or herself beginning with an open-ended request for the teacher's description of how he or she experienced the interaction. Typically, the teacher is able to give a very accurate critique of the strengths and weaknesses of his or her performance, and the "teacher's" taking the expert role at this point minimizes anxiety about being criticized by others. Next, the coach asks the people playing the role of the "student" in the student-teacher interaction to share their impressions of the interaction. The individuals who have played the role of the student are also usually capable of giving very accurate feedback to the group concerning those aspects of the teacher's performance that were effective or ineffective. They are also in a unique position to suggest techniques that the teacher might use to generate a constructive response on their part in either a disciplinary or an instructional situation. At any point, the coach may involve the group in the sharing of perceptions or experiences or in brainstorming to come up with an effective way of handling whatever situation is being practiced.

Accurate self critique and feedback from the group however, are optional and are not necessary in order for the coach to proceed with skill training. After having elicited feedback from the participants, the coach then assumes a more instructional role, that of "stage director." The coach simply models the behaviors which constitute a more effective performance of the skills in question and then requests that the teacher try it. In this fashion a complex sequence of skills can be built component by component in the absence of criticism or threatening feedback to the individual playing the role of teacher. Subsequent practice of additional skill components is achieved through the medium of "instant replay" in which participants are asked to re-enact the previous vignette so that the "teacher" may have a chance to employ the newly

added skill components. Once a given set of skills is mastered, the performance practice is allowed to continue until another critical incident arises. Consequently, most of teacher training is spent with people on their feet utilizing skills with continual and immediate corrective feedback.

PROCEDURES FOR DEVELOPING TEACHER TRAINING PROGRAMS IN LOCAL SCHOOL DISTRICTS

Pyramid Teacher Training

The Classroom Management Training Program is one of the only teacher training programs to systematically explore issues of cost effectiveness for program dissemination in the field. Obviously, it is impossible and financially unfeasible for any school district to hire an outside consultant to retrain every teacher in the school district. The outside consultant, however, can train a cadre of teacher trainers who are indigenous to the school district to serve as disseminators of advanced skills.

As a means of perfecting this technology, CMTP has done field research in "pyramid teacher training." Pyramid teacher training is a system in which the consultant trains six teachers, then trains each of those teachers to be a coach, then supervises each of those teachers as they train additional groups of teachers. In this fashion, the consultant's efforts are multiplied at each tier of the pyramid by training selected personnel to subsequently serve as teacher trainers or coaches within their local district.

This is not a magical process of multiplication in which newly trained coaches can be set free without further backup, but the cost of training subsequent teachers in terms of outside consultant time can be greatly reduced. In the process, it is possible to construct an "expertise hierarchy" within the home school district so that, over a period of time, an ongoing program of staff development or inservice training can be operated primarily by district personnel with intermittent backup from the outside. In a recently published research article which has since been replicated, teachers trained by other teachers showed gains in classroom performance equal to those trained by the consultant. Critical to this pyramid training is a set of coaching procedures which is non-threatening so that teachers do not become defensive at being trained by their colleagues. The performance-oriented teacher training methods described above provide such a vehicle by which teachers can acquire new skills in a context of support and in the absence of criticism.

The Organization of a Staff Development Program

Most of the work of the Classroom Management Training Program focuses upon the implementation of staff development programs within an individual school, school district, or educational center using the pyramid teacher training model. While the needs of different settings vary greatly causing collaboration with CMTP to take many forms, the implementation of a systematic staff development program will typically take the following steps.

(1) INTRODUCTORY WORKSHOP: An introductory workshop is usually given to a large number of teachers or administrators during either a half-day or a full-day session. In a full-day workshop, it is preferable to have teachers divided into primary and secondary groups since management methods differ in these two settings. During such an introductory workshop, teachers are given a thorough overview of management systems available for classroom discipline and motivation problems. Some specific management techniques for dealing with classroom discipline problems are described in sufficient detail so that they can be implemented immediately with a high probability of success. Yet, while the introductory workshop is highly valuable in its own right, mastery of more complex skills of individualized instruction, fine points of incentive systems, and extensive practice of limit-setting skills must wait for a more thorough performance oriented teacher training program. However, the decision to proceed with such a program is almost always based upon teacher response to the introductory workshop since a decision to implement pyramid teacher training requires widespread teacher support.

(2) THE IMPLEMENTATION OF A STAFF DEVELOPMENT PROGRAM: As mentioned above, the implementation of a systematic staff development program is almost always based upon the pyramid teacher training model. This method of staff development involves the training of a core group of at least six teachers to serve as coaches to their colleagues during subsequent performance practice of new skills. Along with these six teachers who are being trained as coaches, a limited number of other school personnel can also participate in the training sessions in order to become familiar with the program, but they do not receive coaching in skill performance.

The training of teachers to serve as coaches in the Classroom Management Training Program usually involves two training periods of three days each. The first and second three-day training periods are separated by approximately one month during which the coaches utilize the newly acquired skills in their own classrooms. During the first

three-day training period, the coaches achieve mastery of a basic repertoire of classroom management skills in the areas of discipline, motivation, and individualized instruction. In addition, they learn the coaching skills that they will be using in training their colleagues. During the second three-day training period, one day is spent in concentrated coaches' training, and the last two days are spent in my supervising the coaches in their training of the next round of teachers. At the end of the six days of work, therefore, teachers have not only mastered a broad range of management skills and coaching skills, but they have also been supervised through their first experience of peer training so that they are ready to function independently. In addition, another round of teachers are now ready to use the skills in their classrooms. Typically, coaches will train their colleagues in pairs, so that the six coaches trained by me will yield three coaching teams. Each team can train an additional six teachers at a time, so that, during the second training period, eighteen additional teachers will be trained.

During the two days of concentrated performance practice which is provided by the coaches, the teachers are trained to use a full range of discipline skills and incentive systems, and they are introduced to advanced instructional techniques. This represents as much new material as teachers can usually assimilate in that period. Training teachers to utilize advanced instructional skills, however, is an area of professional development that has no fixed end point, and districts will sometimes follow the first complete round of training by a second round of training, often accompanied by additional coaches training. This second round of training focuses upon instructional skills in a larger variety of lesson formats including training in the area of specialization of secondary teachers and training in the use of "group discussion leader skills."

(3) DEMONSTRATION WORKSHOPS: At times, school districts or educational centers will not wish to invest in a long-term staff development program which utilizes pyramid teacher training, but they will want teachers to receive a more thorough training in management than can be provided by an introductory workshop. At such times, the Classroom Management Training Program may provide a workshop/seminar of two to four days duration for a large group of teachers which includes a more thorough presentation of classroom management methods and an opportunity for limited practice of certain basic skills. Such programs have been provided as courses at universities for graduate credit during the summer.

(4) SPECIALIZED CONSULTATION: Occasionally, individual schools, districts or centers will request a specific service from the Classroom Management Training Program that does not involve the development of a systematic teacher training program. Such programs are varied in nature and might include setting up a training program for a specialized group of teachers such as teachers of emotionally, behaviorally, or learning handicapped children or working with special subject or substitute teachers. Such a program might include either a broad range of skills or a more narrow range which focuses on the needs of the specific setting.

Maintenance of Training

While pyramid teacher training is an indispensable part of program dissemination, additional procedures are needed to ensure maintenance of training and quality control in the field following training. Without a well designed program of "followthrough," inservice training programs run a high risk of lacking permanence, thereby making the allocation of funds for such an effort a questionable investment. Furthermore, if a maintenance program is costly, particularly if it requires personnel especially allocated for such duties, the entire enterprise is probably unrealistic given the financial constraints of most school districts and regional centers.

CMTP has spent considerable effort over the past four years developing a system of maintenance that is highly effective, requires little input from support personnel, and, in fact, reduces the need for staffings of particular children and the development of individualized educational programs (IEP's).

The maintenance program takes the form of a weekly problem-solving meeting which is attended by teachers who have been trained in the CMTP program. The meeting includes from six to eight teachers and lasts one hour. During that time, teachers follow a specific problem-solving format which has been developed by CMTP, and their objective is to remedy specific management problems that are current in their classrooms. The skills required to be a moderator of these group problem-solving meetings are learned during the teacher training, and the meeting is thoroughly supportive of the person requesting help from the group. This meeting capitalizes not only on the repertoire of problem-solving methods that have been acquired through training, but also upon the accumulated wisdom and experience of a sizeable group of teachers.

Research has shown that such a continuing involvement in the utilization of newly acquired skills is a prerequisite for growth with those skills over time. One-year follow-up data by CMTP indicate that teachers who have been involved in this maintenance program are achieving significantly better results in their classrooms one year after training than they were immediately following training. Such data indicate a sharpening of expertise rather than the gradual decay which may be predictable in the absence of such a program.

The problem-solving group becomes an integral part of the teachers' week and tends to be one of the few meetings that teachers hate to miss. Some of the reaons that cause the group to be self perpetuating and task-oriented are that it meets teachers' and principals' needs for affiliation, support, and professional sharing along with problem solving. In addition, the group duplicates the function of expensive "staffings" of extreme problem children in generating a sophisticated preliminary diagnosis and request for support services without the "uptight" atmosphere and high cost in support professionals' time typical of most staffings. This saving of the time of support professionsals such as psychologists, social workers, and reading specialists can then be translated to increased delivery of service based upon a more clearly formulated request for help.

Repeatedly teachers report that sharing, friendship, and constructive efforts to help each other have radically increased as a result of "the group," and additional teachers can easily join as they are trained. Principals report that their role in relating to teachers is greatly simplified and placed on a constructive footing as they are made allies of the teacher without being placed in the expert or evaluative role. Teacher training, therefore, has a ripple effect which ultimately affects the entire social fabric of a school.

SUMMARY

During the past decade, the Classroom Management Training Program has systematically developed specific, powerful, and cost-efficient classroom management procedures which enable teachers to succeed in the areas of discipline, motivation and individualized instruction. During this time of innovation and field testing, CMTP has continually responded to the needs of teachers and has learned from teachers who have shared with us their practical, everyday management needs and have showed us techniques that have been successful for them over the years. Many procedures

have been developed and subsequently discarded, not because they did not work, but because they were more effort to implement or were more failure prone than other techniques subsequently developed.

In addition to developing effective classroom management procedures, CMTP has also focused its effort upon the development of effective teacher training procedures. We have not been satisfied to simply follow the well-established pattern of dissemination through one-day didactic workshops because our data told us that sophisticated skills are not effectively mastered in this manner. Both performance-oriented teacher training and pyramid teacher training as well as the maintenance program have been the result of a desire to consistently achieve excellent results in the field. We feel that, unlike most inservice programs, we offer a program that incorporates thoroughly tested, highly innovative and effective procedures which utilize staff indigenous to the district. Such a program leaves you with an asset that can grown and improve in the years to come.

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APPENDIX B

Data System and Scoring Manual

Assessment of Student Behavior

The data system outlined below is designed to obtain relatively simple measures of counterproductive student behavior and academic output during reading circle and other "small group" formats, i.e., where the teacher's attention is focused almost exclusively on a small subgroup of students. Time sampling procedures are used to record three classes of behavior: (a) out of seat, (b) inappropriate talk, and (c) off-task.

I. Definitions

A. Out of Seat

This behavior is scored for every child whose rear end is not planted in his or her chair. There are three exceptions to this rule.

1. If a student is conferring with a teacher aide. Do, however, score students who are "goofing off" while standing by the teacher aide and waiting. Such students are scored as "out of seat" if they are facing away from the aide, talking, or laughing.

2. If the student is kneeling on his or her chair while working. Do, however, score students as "out of seat" who are kneeling if they are looking around, talking, or otherwise "goofing off."

3. If two or more students have teacher permission to

engage in activity with resource materials on the floor or in a corner of the classroom. Do, however, score students who leave this activity (and are standing) at any time during the reading circle.

B. Talking to Neighbors

This behavior is scored whenever a student talks to another child nearby or makes an audible vocalization to no one in particular. This behavior must be directly observed and not inferred. The following examples of conversations or vocalizations are not scored:

1. conferring with a teacher aide

2. conferring with another student concerning the assignment. Both students must be seated at a desk, must be whispering, and must have an assignment in front of them. However, if no materials are evident, and/or if there is laughing, loud talking, or other evidence of "goofing off," score "talking to neighbors."

3. Talking to self while doing assigned seat work. For example, many students count or read aloud while working.

4. Conferring with another student while both students are involved in activity with resource materials. Both students must have teacher permission for this activity, must be whispering, and must remain with the same activity (or go back to his or her seat work) throughout

reading circle. If any of these above conditions is not met, then "talking to neighbors" is scored.

NOTE: Audible vocalizations, such as audible laughter, belching, "weird" noises, humming, etc..., are scored as instances of "talking to neighbors."

C. Off-Task

This behavior is scored if at any time during the five-second observation interval a student is not looking directly at his or her study materials. There are three exceptions to this rule:

1. If a student is conferring with a teacher aide.
2. If a student is looking at subject-related information on the blackboard.
3. If a student is glancing at the stop clock (i.e., not longer than a count of "one one thousand.").

II. SCORING PROCEDURES

A. Out of Seat

A 10 second interval is used for sampling "out of seat." Scorers scan the room and record the number of students engaged in this target behavior. The first five seconds are for scanning; the last five seconds are for recording. After each 10 second scoring interval, there is a 10 second rest interval. Thus, there are three (3) scoring intervals of "out of seat" per minute. No student may be

scored as engaged in "out of seat" more than once per 10 second interval.

B. Talking to Neighbors

Scorers divide the room into two approximate halves. A 10 second interval is used for sampling "talking to neighbors." The first five seconds of each interval are for scanning; the last five seconds are used for recording. Scorers scan a given half of the room and record the number of students engaging in "talking to neighbors." No student may be scored as engaging in "talking to neighbors" more than once per 10 second interval. Scorers alternate their observations back and forth between halves of the room every 10 seconds. The first 10 second interval is devoted to sampling "talking to neighbors" in the right half of the class; the next 10 second interval is then devoted to sampling this behavior in the left half of the class. The next interval goes back to the right side, and so on until the entire three-minute data block has been gathered. Using this system, scorers begin each minute of scoring "talking to neighbors" on the right side of the classroom.

C. Off-Task

Same procedure as for "talking-to-neighbors."

III. USE OF THE SCORING SHEET

The pattern of the scoring is as follows:

1. Five (5) 1-minute blocks of "out of seat" (minutes 1, 5, 9, 13 and 17).
2. Two (2) 3-minute blocks of "talking to neighbors" (minutes 2 through 4 and 10 through 12).
3. Two (2) 3-minute blocks of "off task" (minutes 6 through 8, and 14 through 16).

Thus, 17 minutes total scoring is optimal. If less than nine minutes of data for the three targeted behaviors are obtained on any given day, then the data for that day are not used.

Scoring is terminated whenever some event occurs which drastically alters the nature or tenor of the period. Examples include:

1. Other individuals, such as teachers, aides, or visitors entering the classroom and interrupting the lesson to make an announcement or presentation. Scoring is resumed when the individual leaves the classroom and the disruptiveness returns to its previous level.
2. The teacher radically altering the format of the period by introducing some activity atypical of that period.

SCORING SHEET

Date: _____ Teacher _____

Scorer _____ Number of Students Scored _____

Aide in Room? yes____ no ____ Number in R___ in L ___

	MINUTES							OUT OF SEAT TOTALS	TALKING TO NEIGHBORS TOTALS	OFF-TASK TOTALS
OUT OF SEAT	1	0____	REST	20___	REST	40____	REST	_____		
TALKING TO NEIGHBORS	2	R 0____	L 10___	R 20____	L 30___	R 40____	L 50___		_____	
	3	0____	10___	20____	30___	40____	50___		_____	
	4	0____	10___	20____	30___	40____	50___		_____	
OUT OF SEAT	5	0____	REST	20____	REST	40____	REST	_____		
OFF-TASK	6	R 0____	L 10___	R 20____	L 30___	R 40____	L 50___			_____
	7	0____	10___	20____	30___	40____	50___			_____
	8	0____	10___	20____	30___	40____	50____			_____
OUT OF SEAT	9	0____	REST	20____	REST	40____	REST	_____		
TALKING TO NEIGHBORS	10	R 0____	L 10___	R 20____	L 30___	R 40____	L 50___		_____	
	11	0____	10___	20____	30___	40____	50___		_____	
	12	0____	10___	20____	30___	40____	50___		_____	
OUT OF SEAT	13	0____	REST	20____	REST	40____	REST	_____		
OFF-TASK	14	R 0____	L 10___	R 20____	L 30___	R 40____	L 50____			_____
	15	0____	10___	20____	30___	40____	50____			_____
	16	0____	10___	20____	30___	40____	50____			_____
OUT OF SEAT	17	0____	REST	20____	REST	40____	REST	_____		
							TOTALS	_____	_____	_____
							INDEPT. OBS. TOTALS	_____	_____	_____
							% OF RELIABILITY	_____	_____	_____

APPENDIX C

Team Application to Participate in Classroom Management Training

TEAM APPLICATION TO PARTICIPATE IN
CLASSROOM MANAGEMENT TRAINING

SCHOOL _____ DISTRICT _____

GRADE LEVELS AT SCHOOL _____

TEACHER TEAM MEMBER'S NAMES #1 _____

#2 _____

PRINCIPAL'S NAME _____

---

1. How were these two teachers selected? _____

   _____

2. What indications do you have that other teachers in your school are willing to be trained in CMT by your team? _____

   _____

3. Will your district/school cover the costs of release time for the six days of CMT? _____ If not, and your district is a Consortium member district, the Teacher Center may be able to assist you. Check here if you feel you may be in need of such assistance ☐ .

4. Are the principal and two teachers committed to participating in all six days of CMT? _____

5. Are the two teachers committed to practicing the CMT skills in their classrooms? _____

6. Are there six other teachers at your school ready to be trained by you during the CMT sessions? _____

7. Are the two teachers committed to training the other teachers at the school? _____ In other schools in their district? _____ In other districts (if release time is paid by the Teacher Center)? _____.

8. Will the principal support these efforts? _____

9. The Teacher Center is planning to conduct some research to investigate the "Training of Trainers" process. It will not be aimed at evaluating CMT, the trainer or the trainee. The purpose is to see if the teachers trained by other teachers have similar results to those of teachers trained by Dr. Jones. In order to carry out such study, we will need participants who are willing to have an observer visit their classrooms to observe student behavior both before and after the CMT workshops. Please check here if your team is open to the idea of participating in this study ☐ .

SIGNED _____
Teacher

_____
Teacher

_____
Principal

Applications are due by Friday, January 18. Participants will be notified of selection by Friday, January 25.

Please send applications to:

Joanna Dee Servatius
Program Director
TEACHER CENTER
100 Skyport Drive
San Jose, CA 95110

APPENDIX D

Elementary Teacher CMTP Participants Survey

ELEMENTARY TEACHER CMTP PARTICIPANTS SURVEY

AGE
- under 25 ____
- 25 - 30 ____
- 31 - 40 ____
- 41 - 50 ____
- 51 - 60 ____
- over 60 ____

SEX:
- male ____
- female ____

EDUCATIONAL LEVEL:
- B.A. + 15 semester units (no M.A.) ____
- B.A. + 30 semester units (no M.A.) ____
- B.A. + more than 30 semester units (no M.A.) ____
- M.A. ____
- M.A. + 15 semester units ____
- M.A. + 30 semester units ____
- M.A. + more than 30 semester units ____
- Ed.D. or Ph.D. ____

RACE/ETHNICITY:
- Caucasian ____
- Oriental ____
- Hispanic ____
- Black ____
- Other ____

GRADE TAUGHT:
- K ____
- 1 ____
- 2 ____
- 3 ____
- 4 ____
- 5 ____
- 6 ____

NUMBER OF YEARS AS A TEACHER
- less than 3 ____
- 3 - 9 ____
- 10 - 19 ____
- 20 - 29 ____
- 30 or more ____

NUMBER OF YEARS TEACHING IN PRESENT SCHOOL:
- 1 ____
- 2 ____
- 3 ____
- 4 - 9 ____
- 10 - 15 ____
- 16 - 20 ____
- over 20 ____

HAVE YOU EVER PARTICIPATED IN AN IN-DEPTH PROFESSIONAL TRAINING PROGRAM SUCH AS CMTP BEFORE?

____ YES ____ NO

APPENDIX E

CMTP Jones Teacher Training
Follow-up Evaluation

Classroom Management Training Program (CMTP)
Jones Teacher Training
Follow-up Evaluation

Name _____ School _____

District _____ State _____

Position _____ Grade level(s) _____

Setting _____

Date _____ Date of Training _____

INTRODUCTION: This evaluation form attempts to give teachers who have been trained by CMTP the opportunity to share their experiences and opinions regarding the value and utility of CMTP procedures at an interval of several months following training. This time interval will give participants adequate opportunity to try the new management procedures, to make changes where necessary, to solve specific problems in the Maintenance Meetings, and to experience any ripple effects of training such as changes in feelings about various aspects of teaching which may not have been dealt with directly during training. The purpose of this evaluation is to provide teachers with a meaningful yet fairly brief means of providing input into CMTP which might serve as a basis of program evaluation and continued program improvement. Please give yourself a moment to reflect on each question before marking your answer, and please write additional comments wherever appropriate to provide us with specific anecdotes and your feelings as well as those of your students regarding the application of our classroom management technology.

EVALUATION OF TRAINING

DIRECTIONS: Read each item below and rate it on a nine-point scale by placing an "x" over the number which best represents your experience with Jones Teacher Training. The scale represents a continuum from decreasing or eliminating the behavior or feeling in question to increasing the same behavior or feeling. The scale is as follows:

Completely Eliminated	*Dramatic Decrease*	*Significant Decrease*	*Minor Decrease*	*No Change*	*Minor Increase*	*Significant Increase*	*Dramatic Increase*	*New Classroom Atmosphere*
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*

When marking each item, compare your class the way it was before training to the way you might have liked it to be then. If the changes produced by training approximated those goals, mark towards the ends of the scales. Do not compare gains from training to a fantasy "ideal classroom" where everyone is perfect. If you do, ratings will tend to cluster around the middle of the scale and will fail to represent real and significant change or improvement, even though those improvements fall somewhat short of perfect-tion. Realize, as well, that as your class improves, your expectations for them will increase. Ratings, therefore, should represent the discrepancy between present performance and past performance, not the discrepancy between present performance and future goals.

To save space, the rating scale as defined above will be represented schematically on each page in the following form:

	Decrease				NC	Increase			
	1	2	3	4	5	6	7	8	9

Please read each question carefully. "Increase or "decrease" may refer to either positive or negative student behaviors.

I. To what extent has Jones Teacher Training produced a change in the following student behaviors?

		Decrease				NC	Increase			
A.	Student Discipline									
	1) Common disruptions (talking, out of seat)	1	2	3	4	5	6	7	8	9
	2) Blatant disruptions (laughing, talking a-cross room, class get-ting rowdy)	1	2	3	4	5	6	7	8	9
	3) Number of negative peer interactions such as hassles, criticism, put-downs	1	2	3	4	5	6	7	8	9
	4) Talking and dawdling during transitions so that students are slow getting to work follow-ing a change of activities	1	2	3	4	5	6	7	8	9
	5) Disrupting and making noise when passing through the halls or sitting through pro-grams and assemblies	1	2	3	4	5	6	7	8	9
B.	Student Productivity Negative Behaviors									
	6) Time wasting, dawdling, day dreaming	1	2	3	4	5	6	7	8	9

7) Helplessness, asking for help with work before having really tried	1	2	3	4	5	6	7	8	9
8) Waiting for help with hand raised instead of working when you are away from them	1	2	3	4	5	6	7	8	9
Positive Behaviors									
9) Amount of work completed	1	2	3	4	5	6	7	8	9
10) Quality of work completed	1	2	3	4	5	6	7	8	9
11) Working independently	1	2	3	4	5	6	7	8	9
12) Having children who are less of a learning or motivation problem	1	2	3	4	5	6	7	8	9
13) The development of "let's get to work" attitude in the class	1	2	3	4	5	6	7	8	9
C. Other Behaviors									
14) Time for preferred activities as incentive rewards	1	2	3	4	5	6	7	8	9
15) Preferred activities in the form of academic practice or review	1	2	3	4	5	6	7	8	9
16) Systematic use of peer tutoring	1	2	3	4	5	6	7	8	9
17) Expressions of positive feelings for you and enjoyment of your class or school in general	1	2	3	4	5	6	7	8	9
18) Positive peer interactions, spontaneous help	1	2	3	4	5	6	7	8	9

D. Comments: _____

_____

_____

II. To what extent has Jones Teacher Training produced a change in the following teacher behaviors on your part?

A. Teacher Interactions	Decrease			NC			Increase		
19) Pointing out what the student has done right rather than focusing primarily upon error during instructional feedback	1	2	3	4	5	6	7	8	9

20) Shorter duration of helping interactions with students who are stuck	1	2	3	4	5	6	7	8	9
21) More frequent help to students who are stuck	1	2	3	4	5	6	7	8	9
22) Praise for slow students	1	2	3	4	5	6	7	8	9
23) Praise for fast students	1	2	3	4	5	6	7	8	9
24) Ability to differentiate motivation problems from genuine learning dysfunctions	1	2	3	4	5	6	7	8	9
25) Time for individual work with children who need it	1	2	3	4	5	6	7	8	9
26) Time for lesson planning	1	2	3	4	5	6	7	8	9

B. Feelings About Teaching Children

Negative Feelings

27) Frustration with specific children	1	2	3	4	5	6	7	8	9
28) Anger at specific children	1	2	3	4	5	6	7	8	9
29) Exhaustion at the end of the day	1	2	3	4	5	6	7	8	9
30) General tension and stress	1	2	3	4	5	6	7	8	9
31) Feelings of inadequacy or failure	1	2	3	4	5	6	7	8	9
32) Days when it seems like teaching is more trouble than its worth	1	2	3	4	5	6	7	8	9

Positive Feelings

33) Eagerness to go to work in the morning	1	2	3	4	5	6	7	8	9
34) Moments of enjoyment in the classroom	1	2	3	4	5	6	7	8	9

C. Feelings About Colleagues and Self

35) Positive feelings toward colleagues	1	2	3	4	5	6	7	8	9
36) Interactions with colleagues in which help is given and received	1	2	3	4	5	6	7	8	9
37) Positive regard for the principal	1	2	3	4	5	6	7	8	9
38) Feelings of being supported by the principal	1	2	3	4	5	6	7	8	9
39) Pride in being a teacher	1	2	3	4	5	6	7	8	9
40) Feeling of growing professionally	1	2	3	4	5	6	7	8	9
41) Feeling less professionally isolated, i.e., having more opportunity to share teaching concerns with colleagues.	1	2	3	4	5	6	7	8	9

D. Comments: _____

_____

_____

UTILIZATION OF TRAINING

III To what degree have you found the following aspects of Jones Teacher Training helpful in managing your classroom? (Rate 1 through 5 or not applicable "na").

	SKILLS	No Help 1	Helped A Little 2	Moderately Helpful 3	Very Helpful 4	Extremely Helpful 5
42)	Limit setting (physical proximity)	1	2	3	4	5
43)	Stopwatch	1	2	3	4	5
44)	Shaping (instructional skills)	1	2	3	4	5
45)	Discussion leader skills	1	2	3	4	5
46)	Individualized management programs	1	2	3	4	5
47)	Maintenance meetings	1	2	3	4	5

TRAINING EXPERIENCE SURVEY

1. What preferred activities or incentive systems have you discovered or invented for your class that you like? (Write on back of page if necessary). _____

2. Do you have any anecdotes from your classroom, home, or other aspect of your life concerning Jones Teacher Training that you can pass along? _____

3. Do you have any additional procedures or techniques of classroom management in addition to those contained in Jones Teacher Training that have worked for you that you could pass along? _____

4. What were the benefits and/or drawbacks of training, and how would you like to see it changed? _____

5. How have the Maintenance Meetings been carried through and what has been your principal's role in them? ____

6. Did you coach? yes___ no ___. If so, what effects, both positive and negative, did this experience have on you and your teaching? Would you suggest any changes?

7. How does Jones Teacher Training compare with other training or inservice experiences you have had? ____

_____

_____

8. Other comments? _____

_____

_____

Thank you for your time and help.

Sincerely,

Fredric H. Hones, Ph.D.

I am willing to have any comments, anecdotes or suggestions contained in my evaluation reproduced in part or in whole by the Classroom Management Training Program in any newsletter, flier, pamphlet or book describing Jones Teacher Training as a means of communicating my experiences to my colleagues and other interested parties.
(Check one) _____ yes

_____ no

_____ _____

Date Your Signature

In having comments from my evaluation reported by CMTP, I wish:
(Check one) _____ to be named

_____ to remain anonymous

_____ _____

Date Your Signature

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BIBLIOGRAPHY

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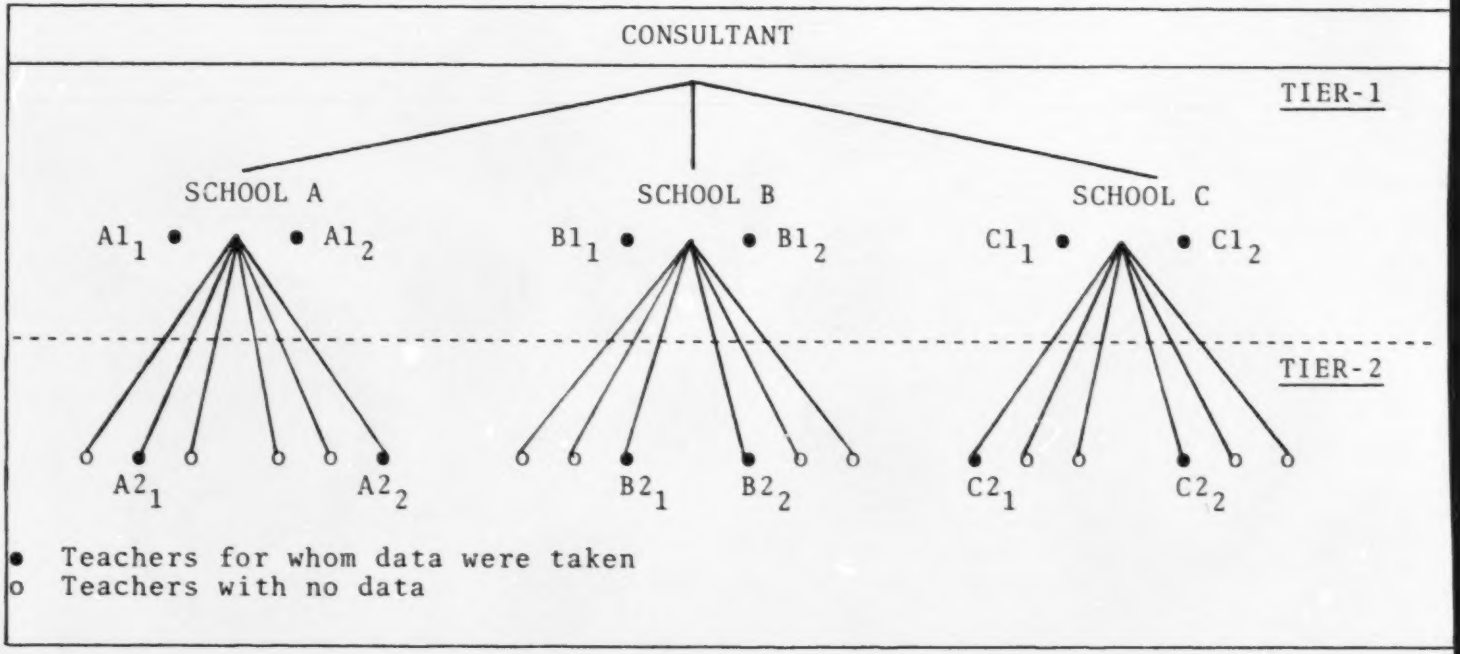
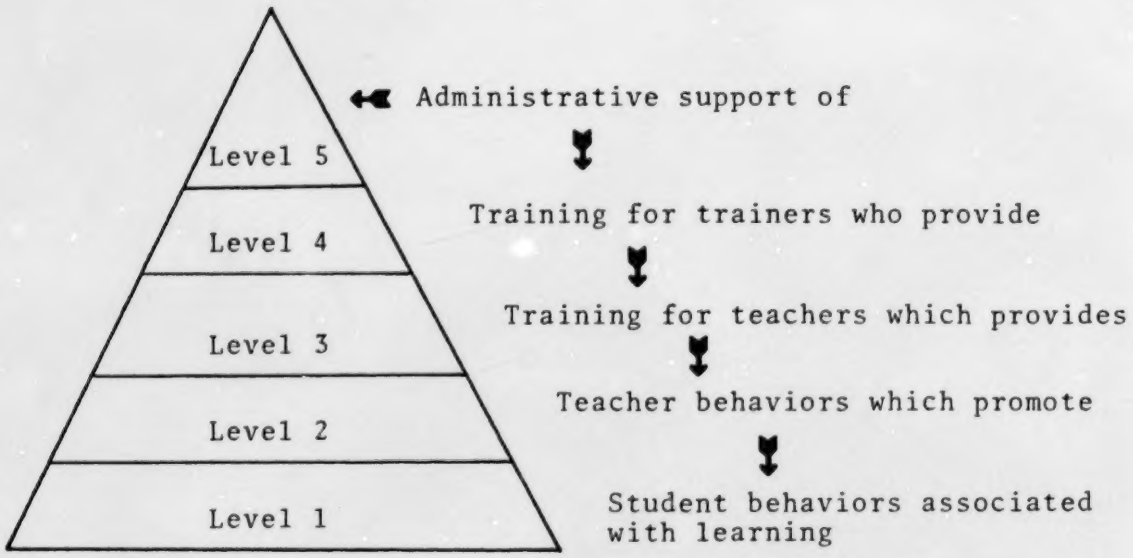

CONSULTANT
TIER-1
SCHOOL A
SCHOOL B
SCHOOL C
A1 1
A1 2
B1 1
B1 2
C1 1
C1 2
TIER-2
A2 1
A2 2
B2 1
B2 2
C2 1
C2 2
• Teachers for whom data were taken
o Teachers with no data

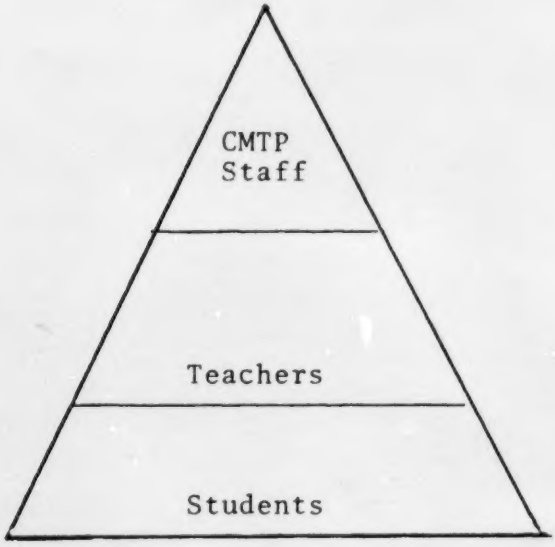
Possible Levels of Impact
(Training Outcomes)

1.	Awareness	realizing an area exists and being able to focus on it
2.	Concept understanding	internalizing the concept
3.	Skill attainment	possession of the skill to act on the new knowledge
4.	Application/ problem solving	using the skill, adapting and refining it

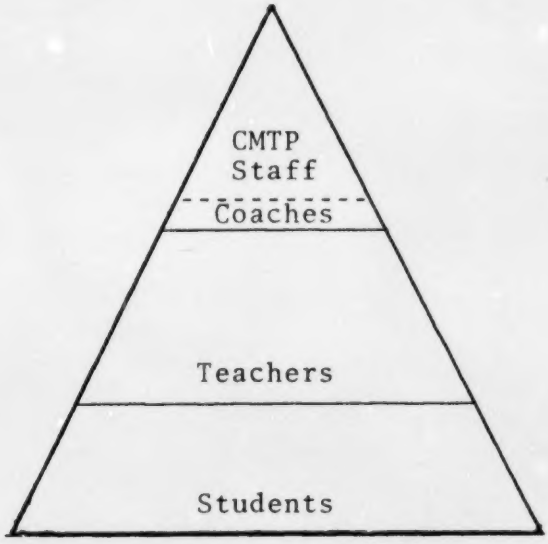
Components of Training

1.	Presentation of theory	description of skill
2.	Modeling	demonstration of skill
3.	Practice	simulation of use of skill
4.	Feedback	structured or open-ended information provided about practice performance
5.	Coaching	assistance in transferring the skill to classroom use


Level 5
Level 4
Level 3
Level 2
Level 1
Administrative support of
Training for trainers who provide
Training for teachers which provides
Teacher behaviors which promote
Student behaviors associated with learning



1979-80
TEACHER CENTER
Training Scheme



Possible Future
TEACHER CENTER
Training Scheme

Inservice Teacher Training
promotes
Specific Teacher Behaviors
promotes
Specific Student Behaviors
promotes
Student Learning